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**1992 STATUS REPORT
WASTE REDUCTION,
RE-USE AND RECYCLING
IN THE
GREATER TORONTO AREA**

MARCH 1993



**Ministry of
Environment
and Energy**

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FOREWORD

This report was prepared by the Waste Reduction Office in full cooperation with the Region of Durham, Region of Halton, Municipality of Metropolitan Toronto, Region of Peel and Region of York.

It provides an overview of provincial and municipal programs for waste reduction and recycling. It also provides information on the current status of waste management in the Greater Toronto Area.

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1992 STATUS REPORT WASTE REDUCTION, RE-USE AND RECYCLING IN THE GREATER TORONTO AREA

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A waste audit was conducted by the Waste Reduction Office in full cooperation with the Region of Durham, Region of Halton, Municipality of Metropolitan Toronto, Region of Peel and Region of York.

Report prepared for:

Waste Reduction Office
Ontario Ministry of the Environment

Produced in cooperation with:

Region of Durham
Region of Halton
Municipality of Metropolitan Toronto
Region of Peel
Region of York

FOREWORD

This report was prepared for the Waste Reduction Office of the Ontario Ministry of the Environment and the five upper-tier municipalities in the Greater Toronto Area (GTA): the Municipality of Metropolitan Toronto and the Regional Municipalities of Durham, Halton, Peel and York.

It provides an overview of provincial and municipal initiatives on reduction, re-use and recycling (3Rs) in the GTA, and identifies some of the opportunities for co-operative action on the 3Rs by all stakeholders.

The report reflects the suggestions offered by waste diversion staff in the GTA upper-tier municipalities, and from the non-government stakeholders who participated in meetings about accelerating waste management and 3Rs activities in the GTA. The meetings were convened by the Waste Reduction Office (WRO). This advice has laid the groundwork for new waste diversion activities, initiatives and programs in the GTA for the years ahead.

The information on provincial laws, regulations, policies, programs and initiatives is current to August 31, 1992. The information on municipal programs is current to December 31, 1991. The information on stakeholder positions in chapter five of the report is based on a WRO consultation program held in the fall of 1991.

A booklet called *Meeting the Challenge: Reduction, Re-use and Recycling in the Greater Toronto Area* has been published. It outlines the waste reduction challenge facing the GTA and summarizes some of the actions and programs to reduce waste in the Greater Toronto Area that municipal and provincial governments have already started. Copies are available from Waste Reduction Office at the address provided below.

Any inaccuracies in the report are the responsibility of the Waste Reduction Office of the Ontario Ministry of the Environment.

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ABBREVIATIONS

3Rs	Reduce, re-use and recycle
AMO	Association of Municipalities of Ontario
AMRC	Association of Municipal Recycling Coordinators
C of A	Certificate of Approval, issued by Ontario Ministry of Environment
CUPE	Canadian Union of Public Employees
EA	Environmental Assessment
EAA	<i>Environmental Assessment Act</i>
EAPIP	Environmental Assessment Program Improvement Project
ENGO	Environmental Non-Governmental Organization
EPA	<i>Environmental Protection Act</i>
ERP	Environmental Research Program
ETP	Environmental Technology Program
GTA	Greater Toronto Area: consists of Metropolitan Toronto and the Regions of Durham, Halton, Peel, and York
GTHBA	Greater Toronto Home Builders' Association
HCEN	Health Care Environmental Network
HHW	Household Hazardous Waste
IC&I	Industrial, Commercial and Institutional
IWA	Interim Waste Authority

Abbreviations (continued)

MMA	Ministry of Municipal Affairs
MRRP	Municipal Reduction/Re-use Program
MRSP	Municipal Recycling Support Program
MSW	Municipal Solid Waste
NAPP	National Packaging Protocol
OCC	Old Corrugated Cardboard
OEN	Ontario Environment Network
ONP	Old Newsprint
OGTA	Office of the Greater Toronto Area
ORTECH	Ontario Research and Technology Foundation
OSDA	Ontario Soft Drink Association
OWMC	Ontario Waste Management Corporation
PET	Polyethylene Terephthalate
R&D	Research and Development
SWEAP	Solid Waste Environmental Assessment Plan for Metropolitan Toronto
WDIS	Waste Diversion Information System
WMMP	Waste Management Master Plan
WRAP	Waste Reduction Action Plan
WRO	Waste Reduction Office of the Ministry of the Environment

INTRODUCTION: Purpose of the Report

This report is a baseline document. It describes the nature and extent of waste reduction initiatives in the Greater Toronto Area in 1991 and 1992. The report presents the activities of major government and non-government stakeholders to reduce, re-use and recycle more of the waste generated in Ontario. The document also includes a historical overview of municipal waste management planning in the GTA, as well as a summary of the major legal, regulatory and policy reform initiatives which the government of Ontario is undertaking. In the interest of clarity, the report provides background information on the roles and responsibilities of the various stakeholders involved in waste management in the GTA in 1991.

Chapter one introduces some pertinent demographic aspects of the Greater Toronto Area and outlines the approach to waste management initiated by the provincial government. Further, the chapter offers an overview of the current roles and responsibilities of the key provincial and municipal government actors.

Chapter two describes the current legal and regulatory framework for waste management and 3Rs (reduction, re-use and recycling) in Ontario. The chapter also surveys the various legal, regulatory, policy and programmatic reforms undertaken in 1990 and 1991 by the Ontario government. Some contact names, addresses and phone numbers are provided.

Chapter three documents the nature and scope of 3Rs activities under way in each of the five GTA upper-tier municipalities. It also describes some of the co-operative provincial-municipal and inter-municipal planning and information-sharing activities initiated by the five GTA upper-tier municipalities and the Waste Reduction Office (WRO) in 1991.

Chapter four describes some of the waste reduction activities being undertaken in the GTA by non-government stakeholders. As consumers, waste generators, processors and users of raw, semi-processed, reusable and recyclable materials, these stakeholders have a major role to play in reorienting waste management in the GTA. The chapter also provides the results of consultation sessions organized by the WRO in the fall of 1991.

The report concludes with final observations on the challenges ahead.

Two appendices provide additional background. Appendix A is a chronology of provincial initiatives announced in late 1990, 1991 and 1992 and is current to August 31, 1992. Appendix B contains photo-reduced copies of the complete series of print advertisements prepared for the GTA Waste Reduction Campaign (funded by the ministry and the Municipality of Metropolitan Toronto) and presented in major daily and community newspapers in the fall of 1991.



1.0 THE GREATER TORONTO AREA (GTA): Where We Are

The Greater Toronto Area is a highly integrated metropolis that includes the Municipality of Metropolitan Toronto and the regional municipalities of Peel, York, Durham and Halton. There are thirty lower-tier or area municipalities within the five upper-tier municipalities. All are shown on Map 1.

The population of the GTA at the end of 1991 was an estimated 3.9 million people. Although the GTA accounts for less than one per cent of Ontario's land area, it has a disproportionate environmental and economic effect on the rest of the province. For example, in 1991 about 44 per cent of Ontario's population lived in the GTA and an estimated 40 per cent of Ontario's economic output was produced by individuals, businesses, government services and institutions in the GTA accounting for about 45 per cent of the province's employment base. In view of the number of people who live and work in the GTA and its economic importance in Ontario, it is essential that the GTA have a comprehensive and co-ordinated infrastructure for waste management and the 3Rs. It is also clear that the success of 3Rs activities in Ontario hinges on what happens in the GTA.

1.1 Waste Management in GTA: An Overview

In 1988, GTA residents, businesses and institutions disposed of more than four million tonnes of solid waste. That is about 45 per cent of the total quantity of the solid waste disposed of in Ontario. Residential waste accounted for about 40 to 45 per cent of the total. Industrial, commercial and institutional (IC&I) sector waste accounted for the remaining 55 to 60 per cent.

On a per capita basis, the GTA has one of the highest rates of waste disposal in the world. This puts an enormous strain on the GTA's waste disposal sites. Even though effective waste reduction programs are reducing the amount of waste disposed of on a per capita basis, the total annual tonnages of residual wastes disposed of in GTA may increase given that the population within the GTA is expected to grow to six million people by 2021.

Even more important than the amount of waste dumped into landfill sites is the loss of valuable materials contained in the waste. Global pressures are mounting to conserve materials and energy resources because of environmental, economic and social costs associated with current resource consumption patterns. Governments, businesses, institutions and individuals world-wide recognize that they need to make significant changes in the way that resources are used. Otherwise, efforts to protect ecosystems and conserve species may not succeed.

1.2 Stakeholders in GTA Waste Management

Waste reduction and diversion programs across the GTA involve the provincial government, the five upper-tier municipalities, the 30 area municipalities, industrial and commercial waste generators, health care and educational institutions, labor unions and environmental and non-profit organizations, as well as individual householders.

This section outlines the roles and responsibilities of municipal and provincial governments.

1.2.1 *Municipal Stakeholders*

Municipalities are key stakeholders in solid waste management because of their role in:

- planning waste management systems and providing various waste management services such as collection, processing and disposal, all of which must be carried out in compliance with provincial policies and regulations;
- developing and operating environmentally secure waste management facilities that keep pace with customers' needs -- be they residential, industrial, commercial or institutional users.

Current roles and responsibilities of upper-tier and area municipalities for waste management activities vary among the GTA regions. In general, upper-tier municipalities have authority over disposal, while lower-tier municipalities have authority over collection. Powers with over 3Rs activities are not well defined in the *Municipal Act* and the five applicable municipal statutes that empower the GTA upper-tier municipalities. The acts covering Metropolitan Toronto, Halton and Durham give them partial responsibility for waste reduction and diversion activities. The acts covering Peel and York give them no explicit authority for 3Rs.

Although upper-tier and area municipalities have assumed responsibility for a variety of waste diversion programs, the absence of explicit authority has been a significant obstacle to waste reduction activities, particularly in Peel and York regions. Both regional governments have placed a number of waste diversion initiatives on hold while awaiting requisite legal authority to engage in 3Rs programs. Still many upper-tier and area municipalities have developed impressive 3Rs programs and activities. The Ontario government has placed a high priority on clarifying and enhancing municipal waste management and 3Rs powers.

1.2.2 *Province of Ontario*

The most important components of the Ontario government's role in the GTA, as elsewhere in Ontario, as a major stakeholder in solid waste management include:

- developing guidelines and policies on all aspects of waste management, including planning and implementation of 3Rs programs, treatment and disposal;
- setting and enforcing standards;
- ensuring that municipalities have the legal authority they need to develop and operate modern waste management systems geared to waste reduction;
- reviewing and approving applications for waste management facilities;
- promoting research and development on all aspects of waste management, particularly 3Rs programs;
- promoting awareness of resource conservation and responsible waste management through public information and education programs;
- providing technical assistance to municipalities for improved waste management planning, facility development and 3Rs programs;
- working with municipalities towards a financially sustainable 3Rs and waste management system;
- setting an example through its own waste reduction, re-use, recycling and procurement practices;
- continuing to co-operate with the federal government and with other provinces in developing national policies and packaging regulations.

In March 1989, the then Minister of the Environment, Jim Bradley, announced two provincial targets for solid waste diversion from disposal facilities: 25 per cent diversion by the year 1992 and 50 per cent by the year 2000. These targets were reaffirmed as minimum objectives by Environment Minister Ruth Grier in October 1990. A provincial strategy to ensure that these targets are met or surpassed, Ontario's Waste Reduction Action Plan (WRAP), was announced in February 1991 (see section 2.2).

Waste Reduction Office (WRO)

The Waste Reduction Office was established by the Minister of the Environment in February 1991 to develop and implement new and effective policies, programs, legislation and regulations to ensure that the promised waste reduction targets are surpassed.

In June 1991, the ministry and the Office for the Greater Toronto Area released a position paper entitled *The Waste Crisis in the Greater Toronto Area: A Provincial Strategy for Action*. It described a framework to deal with waste management problems in the GTA.

The need to accelerate 3Rs activities in the GTA in response to the emerging waste disposal crisis, led to the creation of the GTA Project Section within the WRO. The GTA Project Section is responsible for:

- co-ordinating the development and facilitating the implementation of a strategy to accelerate 3Rs in the GTA;
- initiating the educational programs needed to achieve successful implementation of the strategy;
- ensuring that the programs, techniques and technologies employed are of the best quality, and, wherever possible, that their manufacture has beneficial economic and employment spin-offs for Ontario.

Details on specific measures being undertaken by the province to encourage waste diversion is in chapter two.

Central Region of Ministry of the Environment

Through its Waste Management Unit (WMU), the ministry's Central Region administers many of the 3Rs and waste management programs. For example, Central Region staff are available to help interpret the ministry's laws, regulations and policies that govern waste management and the 3Rs. Waste management unit staff also are involved in educational activities and multi-stakeholder initiatives related to waste management and the 3Rs.

Central Region's Approvals and Planning Unit staff are the contact people for businesses and municipalities which need Certificates of Approval for new or existing waste management facilities, activities and programs.

Office for the Greater Toronto Area

The Office for the Greater Toronto Area (OGTA) was established to support the activities of the Ontario government, its agencies, and the upper-tier and area municipalities in the GTA. The OGTA is responsible for co-ordinating the government's policies, programs, and projects to help ensure that the greater Toronto urban area remains environmentally and economically attractive as it grows. The activities and initiatives undertaken by the OGTA usually require the co-operation of several provincial ministries and agencies as well as the thirty area municipalities and the five upper-tier municipalities in the GTA.

Municipal participation in the co-ordination process takes place through the Greater Toronto Co-ordinating Committee, whose members are appointed by the Premier of Ontario. The Honourable Ruth Grier is the Minister Responsible for the Greater Toronto Area.

Interim Waste Authority

The Interim Waste Authority (IWA) was incorporated in January 1991 under the *Business Corporations Act* as a Crown agency with a board of directors. Its mandate is to establish three long-term landfill sites in the GTA. The IWA operates under terms and conditions set out in a Memorandum of Understanding between the Minister for the Office of the Greater Toronto Area and the IWA's board of directors. The interim in Interim Waste Authority remains because the IWA is seen as a short-term siting authority and not necessarily as a long-term waste management system operator.

The IWA's mandate is to search for three landfill sites within the GTA. One site will be located in Peel Region and will serve Peel, one site will be located in Durham Region and will serve Durham, and one site will be located in Metro Toronto or the York Region and will serve the needs of Metro Toronto and York Region. Each landfill must serve the needs of the residents in its respective area for at least twenty years.

2.0 PROVINCIAL CONTEXT

This chapter describes the legal and regulatory framework governing waste management in Ontario and outlines proposed provincial initiatives intended to accelerate development and implementation of improved waste diversion programs. All GTA programs are designed and operated within this framework. It should be noted that the information on provincial initiatives in this chapter is current to August 31, 1992.

The chapter has been divided into five sections. The first examines the current legal and regulatory framework governing waste disposal in Ontario. The second outlines proposed reforms to current laws and regulations as outlined in Ontario's Waste Reduction Action Plan - which was released in February 1991. The third describes other reforms related to 3Rs that the Ontario government has either proposed or undertaken since October 1990. The fourth outlines waste management and 3Rs funding programs which are available to municipalities. This includes OMMRI's capital assistance for the Blue Box program and industrial waste diversion programs which are sponsored by the ministry. The final section examines some of the existing and proposed communication and education programs and program development projects in which the ministry is involved.

2.1 The Legal and Regulatory Framework

Current provincial laws and regulations have had a significant effect on the nature of waste management and 3Rs activities in Ontario.

2.1.1 *The Environmental Protection Act*

In Ontario approval of new waste management systems and sites is governed primarily by provisions in the *Environmental Protection Act (EPA)*. Various terms and phrases such as "waste" and "waste management systems" are broadly defined in Part V of the EPA. For example, "waste" is defined in Part V of the EPA to include ashes, garbage, domestic waste, industrial wastes or municipal refuse. Under the EPA all facilities, equipment, and processes used in waste management systems, including collection, handling, storage and disposal components of the systems, must be approved by the ministry.

Before a Certificate of Approval (C of A) for a system, or a component of a system, may be issued under the EPA, the proponent must submit an application to the director of the Approvals Branch or the regional office of the ministry which regulates facilities within the affected area. Proponents may seek approval for an entire waste management system or small components of a system.

Landfill sites or projects which will serve fewer than 1,500 people or which are exempt from an environmental assessment, are subject to a mandatory public hearing under the EPA. The scope of a mandatory public hearing under section 30 of the EPA is not as broad as a hearing under the Environmental Assessment Act. The primary focus of a hearing under section 30 of the EPA is the technical acceptability of a particular proposal or project.

Under the *Environmental Protection Act*, the ministry must ask the Environmental Assessment Board to hold a public hearing for landfill sites which are intended to serve communities of more than 1,500 people. Environmental Assessments are also required for major components of waste management systems such as transfer stations (taking more than 300 tonnes of waste per day) or processing facilities (taking more than 200 tonnes a day).

If a municipality makes a proposal to build a waste disposal site the *Environmental Assessment Act* applies to the proposal unless it specifically has been exempted. Other projects, such as the establishment of smaller new landfill projects (*ie.* for fewer than 1,500 people), the expansion of existing sites, the construction of 3Rs facilities and the disposal of inert fill, may be approved without a full public hearing under the *Environmental Assessment Act*. Currently what are called the "minor" components of a waste management system, such as the Blue Box program or household hazardous waste days, also can be approved under the *Environmental Protection Act*.

Waste management activities also are governed by Ontario Regulation 347 (previously Regulation 309). This regulation provides different levels of regulatory scrutiny to a range of wastes, including everything from hazardous wastes to municipal solid waste.

2.1.2 *The Environmental Assessment Act*

The purpose of the *Environmental Assessment Act* (EAA) is to help protect, conserve and manage Ontario's environment through sound planning. The Act defines environment quite broadly to include not only the natural environment -- air, water, and soil -- but also the economic, social, cultural and built environment. The Act requires the person or organization making a proposal to justify the proposal, such as a waste disposal site. This includes describing the alternatives considered and the criteria used in making the decision.

As a matter of ministry policy most applications that require mandatory hearings under section 30 of the *Environmental Protection Act* are required to undergo full environmental assessments. If a full environmental assessment hearing is required for a waste system, site or facility, it is held in the municipality where the waste disposal site is or is intended to be located.

Under the EAA, the Environmental Assessment Board considers the need for a proposed undertaking, the alternatives to the undertaking and the alternative methods of carrying out the undertaking. Since 1988, the board has had the legal power to make decisions on the acceptability of a particular undertaking put forward by a proponent.

Hearings usually are conducted before a three-member panel. The EAB has power to determine its own practice and procedure, summon witnesses, retain experts for the benefit of the board, receive and reject evidence, and generally to conduct itself like a court.

A private company which submits a proposal for a waste management system is under no statutory obligation to get the system approved under the EAA. However, the Ontario Government may designate that such a project under the *Environmental Assessment Act* which means that the proposed project is subject to an environmental hearing under the EAA.

Status of *Environmental Assessment Act* Reforms

In April of 1988, the Ministry of the Environment announced that a review was being undertaken to improve the effectiveness and efficiency of the *Environmental Assessment Act*. The review, known as the Environmental Assessment Program Improvement Project (EAPIP), was divided into two phases. Phase one dealt with administrative improvements that were to be implemented by the ministry in the short-term. In its original conception, phase two was supposed to provide a basis for a more comprehensive review of the environmental assessment program.

As a result of increasing public pressure to speed up the EAPIP review, an EA Task Force was formed in 1989. Its mandate was to complete a comprehensive Phase two review and to address all proposed recommendations from Phase one. The task force's report, titled *Toward Improving the Environmental Assessment Program in Ontario*, was released for public review in December, 1990. The Environmental Assessment Advisory Committee (EAAC), an advisory group appointed by the Environment Minister, was asked to conduct public consultations on the discussion paper in the spring of 1991. Preliminary reforms aimed at speeding up the EA process were announced by the Environment Minister in April 1992.

2.1.3 *The Consolidated Hearings Act*

Waste disposal systems often are subject to statutory requirements in the *Environmental Protection Act* and the *Environmental Assessment Act*. The *Consolidated Hearings Act* permits public hearings required under sub-sections 30, 32 and 36 of the EPA to be held together with hearings required under other provincial statutes including the *Environmental Assessment Act* and the *Planning Act*.

2.1.4 *Waste Management Act, 1992*

On October 24, 1991, the Minister of the Environment introduced Bill 143 or the *Waste Management Act* to the legislature. In late December 1991, the bill was referred to the Standing Committee on Social Development for public review and proclaimed as law on April 27, 1992. The *Waste Management Act* contains four parts:

- Part one continues the Interim Waste Authority Ltd. as a Crown agency and gives it the additional powers required to establish three long-term landfill sites in the GTA;
- Part two establishes the areas of search for the three landfill sites in the GTA and the content requirements for the Environmental Assessment of the sites;
- Part three clarifies the obligations of three of the upper-tier municipalities in the Greater Toronto Area to implement the Minister's reports under Section 29 of the EPA and removes any legal impediments to their doing so;
- Part four amends the EPA to help speed up 3Rs activities in Ontario, and to provide enabling legislation to implement the proposed 3Rs regulations.
- For the purposes of this report, it is important to highlight some of the important features of Part IV of the *Waste Management Act*. The new regulation-making powers will allow the province:
 - to require major packaging users to prepare waste audits and workplans;
 - to require larger industrial, commercial and institutional (IC&I) establishments to undertake waste audits and to prepare waste reduction workplans based on the principle of source separation of recyclable and reusable materials from residual wastes for disposal;
 - to study and fund 3Rs activities and additional regulatory powers to control the production of disposable products which are destined for immediate disposal;
 - to impose deposits on products and packages.

Other clauses in Part IV (subsection 34(2) of the Act will allow accelerated approvals for certain key types of recycling sites by clarifying and streamlining the current approvals process under the EPA. At present, a provisional Certificate of Approval (C of A) must be issued under Part V of the EPA. Obtaining a C of A can be lengthy and cumbersome. Delays and uncertainties about approvals under these provisions have impeded the implemen-

tation of 3Rs programs and the development of new 3Rs facilities in Ontario. The new "permit-by-rule" approach should eliminate these barriers. The ministry will publish clear rules governing how sites must be developed and safeguarded to protect the environment. The operator of a recycling site which meets the rules outlined in the proposed 3Rs regulations will be deemed to have a C of A for the site. The approval process will be streamlined further by a "one window, one voice" approach whereby approvals will be co-ordinated by the regional operations staff with the assistance of the Waste Reduction Office.

According to *Initiatives Paper #1*, (See Section 2.2.2) the recycling sites or facilities which will be eligible for rapid approval under the new provisions include: de-inking facilities for recycling paper; gypsum recycling plants; leaf and yard material composting sites; multi-material recycling facilities such as those that process Blue Box materials; and wood recycling sites. The Ontario government is considering adding other facilities to this list. How the "permit-by-rule" mechanism will be applied will be spelled out in the 3Rs regulations and background materials.

2.1.5 The National Packaging Protocol (NAPP)

The National Packaging Protocol is an agreement on measures to reduce packaging waste prepared by the National Task Force on Packaging, a multi-stakeholder body established by the Canadian Council of Ministers of the Environment (CCME) in 1989. With the support of the previous Ontario government, the CCME endorsed the protocol in March 1990.

The purpose of the protocol is to reduce the amount of packaging material being disposed of in Canada to 50 per cent of 1988 levels by the year 2000. There are interim targets of 20 per cent by 1992 and 35 per cent by 1996. Half of each of these three targets is to be achieved through source reduction and re-use initiatives. The following six packaging policies, recommended by the National Packaging Task Force and endorsed by the CCME, are intended to help achieve these targets:

- *All packaging shall have minimal effects on the environment.* Industry is to assess the impact which their packaging has by undertaking environmental profiles (similar to Life Cycle Analyses) of the environmental effect of the packaging they make or distribute.
- *Priority will be given to the management of packaging first through source reduction, then through re-use and finally through recycling.*

- *A continuing campaign of information and education will be undertaken to make all Canadians aware of the function and environmental impacts of packaging.*
- *These policies will apply to all packaging used in Canada (including imports).*
- *Regulations will be implemented as necessary to achieve compliance with these policies. However, voluntary actions are to be encouraged before regulatory measures are employed.*
- *All government policies and practices affecting packaging will be consistent with these national policies. Provincial and federal governments and their agencies will co-operate in the development of policies and standards related to packaging and labelling. This is necessary because the federal government has jurisdiction over regulating trade and commerce and other related matters under the *Constitution Act, 1867*.*

The National Packaging Protocol should reduce the amount of packaging which must be disposed of in landfill sites in the GTA. But it is unclear how great the reduction will be and how quickly changes will take place.

2.2 Proposed Reforms to the Provincial Legal and Regulatory Framework

Since October 1990, the Minister of Environment has made a number of important policy announcements about waste management in Ontario. These statements are documented in Appendix A. Elements from major announcements are described in this section to provide a backdrop for the many provincial initiatives currently under way in the GTA.

2.2.1 Waste Reduction Action Plan (WRAP)

On February 21, 1991, the Minister of the Environment introduced Ontario's Waste Reduction Action Plan. It expressed the Ontario government's commitment to implement a number of strong regulatory measures to reduce, at source, the flow of valuable resources going to landfill sites.

The Waste Reduction Action Plan stated that:

- the financial and technical systems needed to direct secondary materials from landfills to productive use and re-use would be put in place;
- work would proceed to create healthy markets for material recovered through 3Rs programs;

- public education programs would be developed to provide residents of Ontario with the information needed to make responsible 3Rs choices.

The action plan also requires certain categories of waste generators in the GTA to improve their current 3Rs programs. Some of the anticipated changes are described in subsection 2.2.2.

2.2.2 *WRO Initiatives Paper #1: Regulatory Measures to Achieve Ontario's Waste Reduction Targets*

The Ministry of the Environment developed the Initiatives Paper series to disseminate proposals and information on new regulations and reform options related to the 3Rs and waste management.

Initiatives Paper #1 was released on October 9, 1991. The paper outlines a number of specific regulatory measures to achieve Ontario's waste reduction target and provides the basis for changes to Ontario Regulation 347 (formerly 309), which is the general waste management regulation under the EPA.

The proposed measures include:

- requiring most large IC&I establishments to undertake waste audits and waste reduction work plans;
- requiring major packaging users to undertake audits and waste reduction work plans;
- mandating source separation of recyclable materials by selected IC&I sectors;
- requiring all but the smallest municipalities to implement a source separation program for recyclable materials. (Note: in *Initiatives Paper #1* the municipalities affected are those with populations of more than 5,000.);
- requiring most municipalities to collect and compost leaf and yard waste;
- creating an alternative approvals process for specified types of recycling sites based on a "permit-by-rule" approach incorporating siting, design and operational standards.

When the final regulations outlined in the paper are promulgated and published in the *Ontario Gazette*, they will provide specific powers to the Minister of the Environment to regulate waste generators with respect to the following activities:

- preparation of waste audits and implementation of waste reduction workplans;
- establishment and operation of source separation systems;
- establishment and operation of composting systems.

As part of the consultation process, the Minister solicited comments from interested groups and organizations. As well, ministry staff made over 90 presentations to various organizations across the province.

A summary report on the results of the consultation program for *Initiatives Paper #1* is of being prepared. It will be followed by a set of amendments to Regulation 347.

When the regulations are published in the *Ontario Gazette*, auditing guidelines and implementation manuals will be distributed.

For more information on the proposed 3Rs regulations, write or call:

Supervisor, Waste Reduction Policy Unit
 Waste Reduction Office, Ministry of the Environment
 40 St. Clair Ave. W., 7th Floor
 Toronto, ON M4V 1M2
 Tel. (416) 325-4440 Fax (416) 325-4437

2.2.3 *Ministry of Municipal Affairs (MMA) Discussion Paper -- Municipal Waste Management Powers in Ontario (also known as Initiatives Paper #3)*

Municipalities lack sufficient legal powers and authority to meet the changing waste management functions they are expected to fulfil. The impetus for change comes from various sources. Several municipalities, as well as the Association of Municipalities of Ontario (AMO), have requested additional municipal waste management powers, because the inadequacy, inconsistency and fragmentation of existing municipal powers impedes municipal efforts to provide modern waste management services geared to waste diversion.

The discussion paper examines what powers municipalities will need if they are to implement waste management strategies that effectively meet current and future challenges. It describes the framework of municipal waste management in Ontario, develops principles for statutory municipal waste management powers and offers proposals for new statutory powers.

The proposals are in the form of potential powers and proposed options which are summarized below. These potential powers and proposed options do not constitute provincial policy.

Potential Powers

1. Provide municipalities authority to manage all types of waste, to engage in all aspects of waste management such as planning, collection, 3Rs programs, and disposal.
2. Increase penalties for breaching municipal waste management by-laws.
3. Give municipalities authority to enter property for waste management planning purposes, subject to safeguards.

Proposed Options:

1. Increasing the Planning and Management Authority of Municipalities

Three options are proposed for permitting municipalities to regulate the flow of waste generated within their boundaries.

Option A -- Authorize municipalities: to direct residential waste to designated facilities and to require that residential waste be separated at source.

Option B -- Authorize municipalities: to direct residential waste to designated facilities and to require that such waste be separated at the source; and to direct IC&I waste for which municipalities have diversion facilities to designated facilities and to require that such waste be separated at the source.

Option C -- Authorize municipalities: to direct residential waste to designated facilities and require that such waste be separated at the source; and to direct IC&I waste for which municipalities have a waste diversion plan which has been accepted by the Ministry of the Environment to designated facilities and to require that such waste be separated at the source.

2. Power to Collect User Charges

Many municipalities have sought the power to collect user fees from private residents. Two options are proposed for municipal authority to charge users of municipal waste management services:

Option A -- Municipalities be granted authority to charge for waste disposal by class, volume, weight or any criteria they choose.

Option B -- Municipalities be granted authority to charge for collecting and disposing of waste by class, volume, weight or any criteria they choose.

3. Power to Require Compensation

Three options are proposed for dealing with the issue of municipal authority to require compensation from operators of landfill facilities.

Option A -- Do not give municipalities the power to require compensation from waste disposal operators and rescind the power currently found in legislation affecting counties and certain regional municipalities.

Option B -- Extend the municipal power to require compensation from waste disposal operators to all municipalities with waste disposal powers but restrict the compensation levels to waste management-related costs (subject to an appeal to the Ontario Municipal Board).

Option C -- Extend the power to require compensation from waste disposal operators to all municipalities with waste disposal powers without restrictions as to use of funds (subject to an appeal to the Ontario Municipal Board).

4. Power to Regulate Tipping Fees

Two options are proposed for dealing with the issue of municipal power to regulate tipping fees for all waste management facilities that receive a municipality's waste.

Option A -- Do not give municipalities the power to regulate tipping fees of waste management facilities. (This would preserve the status quo).

Option B -- Provide municipalities authority to regulate tipping fees for all facilities (private or municipal) that are part of their waste management system in accordance with a waste diversion strategy accepted by the Ministry of the Environment.

5. Reallocation of Certain Waste Management and 3Rs Powers Between Lower-Tier and Upper-Tier Municipalities

Three options are proposed for distributing waste management powers between the upper and lower tiers in the county and regional municipal systems:

Option A -- All waste management powers of local municipalities be transferred to the upper-tiers and the upper-tiers be granted 3Rs powers; upper-tiers be permitted to delegate the transferred powers and 3Rs powers to local municipalities; upper-tiers also be permitted to set terms and conditions of delegation.

Option B -- Upper-tiers be granted authority over waste disposal and 3Rs programs; lower-tiers retain authority over collection subject to upper-tier terms and conditions; upper-tiers be authorized to assume collection services from lower-tiers subject to an agreement.

Option C -- In regional municipalities upper-tiers be granted authority over solid waste disposal and lower-tiers be granted authority over 3Rs and collection; upper-tiers be allowed to assume collection and 3Rs powers from the lower-tiers, subject to an agreement. In counties, lower-tiers retain all waste management powers but the upper-tiers be permitted to assume any or all powers from the lower-tiers as provided for in Bill 201, 1989. The legislation amended the *Municipal Act* to allow counties to assume greater waste management powers.

Providing these powers to municipal governments will ensure that programs appropriate to the needs of a particular community may be introduced, and that the measures required for their success may be enforced locally.

After two months of province-wide consultation in the spring of 1992, Ministry of Municipal Affairs began drafting legislation that will provide the necessary legal powers to Ontario municipalities. It is expected that this legislation will be introduced in the Ontario legislature in 1993.

2.2.4 *Incineration Ban*

In April 1991, the Minister of the Environment banned the construction of new Municipal Solid Waste (MSW) incinerators in Ontario. In the GTA, the Minister's decision ruled out incineration as an alternative to the search for three long-term landfill sites now being undertaken by the IWA. The ban was promulgated in a regulation amending EPA Regulation 347 (formerly 309) in the *Ontario Gazette* in September 1992.

The ban does not affect Ontario's six existing municipal waste incinerators. The approval and monitoring requirements for these facilities, however, are being reviewed to determine whether they need to be upgraded. The incineration of biomedical and hazardous wastes as well as the burning of untreated wood and some other specific clean materials is being allowed to continue under stringent controls.

A new policy framework for controlling hospital incinerators also is being developed. A discussion paper on this issue was released in the spring of 1992.

The Ontario Government's decision to ban new MSW incinerators was based on a careful consideration of the overall environmental and economic effect of the technology. It is in keeping with the Ontario government's emphasis on pollution prevention and waste reduction as the primary means of ensuring environmental integrity. The rationale for the decision is summarized below.

Environmental Impact

Even with the best emission controls, all incinerators cause air pollution. The pollutants vary according to the type of garbage being burned. They may include nitrogen oxide, sulphur dioxide and hydrogen chloride as well as metals and organic pollutants such as dioxins and furans. Some of these pollutants contribute to global warming. Many are toxic. Eventually, they settle in soil and water, adding to the cumulative toxic load on the environment, which may then have a detrimental effect on human health.

Moreover, incineration does not make garbage disappear; it merely reduces the amount burned by two-thirds. The residual bottom ash must still be disposed of in landfill sites. Further, fly ash captured in the smoke stack is extremely toxic and must be disposed of as hazardous waste - at a high cost - in specially designed landfill sites.

Cost and Efficiency

Garbage incinerators are extremely expensive to build. For example, an incinerator burning only a quarter of the solid waste generated in the Greater Toronto Area would cost almost a billion dollars. Operating costs for incinerators are also very high. These costs typically exceed the potential savings from the recovery of energy for heating or electrical power.

Encouraging Green Industries

Rather than helping waste reduction efforts, incinerators require a constant large supply of garbage. Some of the waste burned includes materials that could have been recycled or re-used.

This hurts the economic viability of recycling programs, such as the Blue Box, and it removes incentives for manufacturers to make products that are reusable or recyclable and have less packaging.

The ministry's waste management strategy encourages Ontario's residents to adopt the principle of moving toward a conserver society by putting the emphasis on reduction and source separation of reusable and recyclable materials from wastes for disposal. This policy will ensure that a stable and steady supply of recycled and used materials are available for green industries. For example, the ban on construction of new MSW incinerators has generated requests from the private sector for assistance in investigating appropriate technologies or starting up plants to process and recycle various kinds of paper generated in the GTA.

2.2.5 Waste Export Control and Local Disposal

Local disposal of solid waste is an established practice in Ontario, and the approach has been used by most municipalities for generations. This practice was reaffirmed by Environment Minister Ruth Grier in April 1991 when, in a statement to the legislature, she said that the Ontario government wished to encourage municipalities to dispose of their Municipal Solid Waste as close as possible to where it is generated.

Waste, however, is exported. For example, while seeking approval for its new landfill site and during its construction, Halton Region exported its residual waste to landfill sites in Southern Ontario and the United States. In 1991, Halton region shipped out 162,000 tonnes of residential waste. About 40 per cent of the total went to the Occidental Incinerator in Niagara Falls, New York and the remaining 60 per cent was sent to a landfill in Thorold, Ontario.

In the past two years, the rate of IC&I waste exported from the GTA has increased substantially. The increase in the amount of waste exported after the U.S. Department of Agriculture changed its rules in September 1991 to allow American landfill sites to accept imported waste. Another reason the export of waste increased was the hike in tipping fees at publicly-owned and operated landfill sites and transfer stations within the GTA. Metro Toronto's tipping fee was increased to \$150 a tonne plus the rate of inflation in July 1991 from \$97.50 a tonne in 1990. In addition, a surcharge of \$177 a tonne was levied for loads of mixed wastes (*i.e.* those that include recyclable materials) received at transfer stations.

These fees, which were intended to encourage diversion from landfill through 3Rs activities, made cross-border hauling of waste more profitable. It also has been suggested that some landfill operators in the United States may be trying to fill up their landfill sites before amendments made by the U.S. Congress to the *Resource Conservation and Recovery Act* come into force. These amendments could result in the closing of many landfill sites in the United States.

The effect of exporting waste is unclear because some of the decrease in wastes disposed of in GTA landfill sites may be the result of the recession. But according to an estimate prepared by the U.S. Department of Agriculture in September 1991, the amount of waste exported from Canada was expected to rise to one million tonnes in 1991 from about 100,000 tonnes in 1990.

2.2.6 *Implications of the Proposed 3Rs Regulations for the GTA*

The proposed 3Rs regulations outlined in *Initiatives Paper #1* should dramatically reduce the amount of waste from the GTA which goes to landfill sites. A survey of the effects of the proposed regulatory measures on three categories of GTA waste generators is presented below.

Implications for IC&I Generators

In 1989, the IC&I sectors generated approximately 55-60 per cent of Ontario's Municipal Solid Waste. The proposed 3Rs regulations will require designated IC&I generators to develop appropriate waste reduction activities based on proper planning. The goal of the initiative, as explained in *Initiatives Paper #1*, is to reduce IC&I waste "through the introduction of waste audits, workplans and source separation programs for selected recyclable materials." For most generators, these materials initially will include old corrugated cardboard (OCC), fine paper, old newsprint (ONP), aluminum, glass and ferrous metal. In addition, construction and demolition businesses will be required to source separate drywall, ferrous metal, concrete and brick for recycling.

The proposed regulations will require various IC&I establishments in designated sectors to develop workplans to:

- design, implement and operate source-separation programs for designated materials;
- train employees to run the programs.

The GTA is home to more than an estimated 2,100 of the 5,300 IC&I generators which will be required to prepare waste audits and workplans.

The packaging industry - including production and distribution - contributes as much as much as 15-20 per cent of the total Municipal Solid Waste disposed of in Ontario each year. The proposed 3Rs regulations will require major packaging users in food establishments, beverage, paper (or allied products) and chemical manufacturing to do packaging audits, and to prepare workplans to reduce packaging waste.

Changes in product formulation and manufacturing methods in response to the proposed 3Rs regulations, and other initiatives that encourage product stewardship, should result in a dramatic reduction in material going to landfill sites without the need to construct sorting or processing facilities. Opportunities to re-use packaging materials or to exchange waste materials may be explored with product suppliers and other companies, again without the need for processing facilities. Other re-use activities may require storage facilities to handle the flow and/or upgrading of materials.

Implications for Organic Waste Generators

According to a report prepared for the ministry in 1991, organic waste makes up 32 per cent of residential and 12 per cent of IC&I wastes in Ontario. Composting activities and programs are important to the success of waste reduction plans and programs in the province and the GTA.

The proposed 3Rs regulations will require municipal composting of leaf and yard waste. The permit-by-rule provisions will make it easier to find sites for new leaf and yard waste compost facilities in the GTA. This should ensure the diversion of significant amounts of waste from GTA landfill sites which, in turn, will alter the nature and volume of residual waste requiring disposal. Exactly how these changes will be reflected in the composition and characteristics of the residual wastes remains to be seen. It is possible, however, that there will be fewer odour and vermin problems at landfill sites.

The ministry released interim guidelines for the production and use of compost in Ontario in November 1991. The Waste Reduction Office is exploring numerous marketing opportunities for compost produced in Ontario, including agricultural market demand.

Implications for Owners of and Tenants Living in Multi-Unit Buildings

About 35 per cent of the residents in the GTA live in apartment buildings or multiple-unit residential buildings, such as townhouses. At present, the WRO estimates that only about one-third of the apartment buildings in the GTA are serviced by on-site recycling depots, or by municipal Blue Box programs. Many apartment dwellers have been extremely frustrated by the lack of facilities for recycling.

Under the proposed 3Rs regulations, all apartment buildings and multiple-unit residential buildings in the GTA now serviced by municipally-operated curbside or depot refuse collection would have to be provided with appropriate 3Rs collection services, and the residents provided with appropriate storage equipment, such as Blue Boxes. It is hoped that apartment dwellers also will be served by on-site composting or wet waste collection systems.

2.3 Overview of Other Provincial 3Rs-Related Initiatives

Other provincial 3Rs-related policies and programs are being developed and implemented to improve municipal waste systems planning. They include monitoring and measuring of waste diversion as well as investigating the prospects for green industries and the procurement of appropriate waste reduction technology by municipalities. These initiatives are described below. Funding and financing issues related to 3Rs are outlined in section 2.4 and education and communication programs are described in section 2.5.

2.3.1 *WRO Initiatives Paper #2: Waste Management Planning in Ontario*

The Waste Management Master Plan (WMMP) program was established in 1982 to encourage comprehensive waste management planning in municipalities. The intent of the program was to prevent the development of critical landfill capacity shortages and to ensure proper planning in accordance with the EAA.

Many problems with the program have been identified over the years. Generally, these relate to finding locations for landfill sites, environmental assessment process requirements, and ineffective delivery of the program. The program has become more complex due to changes in ministry policy such as the increased role of 3Rs initiatives.

The Waste Management Master Plan program was transferred to the WRO from the Waste Management Branch in the spring of 1991 as a means of establishing a link with municipalities that will encourage planning with an increased emphasis on waste reduction. In May 1991, preliminary discussions began with stakeholders on changes to the WMMP program. Subsequently, a revised waste management planning process was developed by the WRO. The revised process is outlined in *Initiatives Paper #2* which, together with the Ministry of Municipal Affairs paper on municipal waste management powers, was released in March 1992. A 90-day public consultation was held in May and June 1992 with ministry staff attending eleven formal consultation meetings across the province.

Once the changes are completed, documents explaining the revised planning process will be prepared. These documents are expected to be released in 1993.

2.3.2 *Monitoring and Measuring*

The ministry is analyzing the effects of current and proposed 3Rs activities, policies, and legislation. Information is being gathered from municipal and private sector sources, and an approach is being developed to process and analyze the data.

Numerous factors, including population and economic growth and the success of 3Rs activities, will influence the rate of waste disposal in Ontario in the 1990's and into the next century. In recognition of this, the WRO is preparing a complex model known as the Waste Diversion Information System to describe the changes in residential and IC&I waste streams which may be anticipated over time.

Development of the system began in mid-1991 with the support of the ministry's Systems and Information Technology Branch. The conceptual design of the model and its prototypes are finished. The prototypes are being used to monitor and measure diversion activities.

For more information on Waste Diversion Information System, write or call:

Manager, Diversion Analysis and Support Unit
Waste Reduction Office, Ministry of the Environment
40 St. Clair Ave. W., 7th Floor
Toronto, ON M4V 1M2
Tel. (416) 325-4440 Fax (416) 325-4437

2.3.3 *WRO Initiatives Paper #4: Measuring Waste Diversion Activities in Ontario*

One of the challenges facing the ministry is to develop consistent standards for measuring waste diversion activities in Ontario. The lack of standards has caused confusion in discussions about diversion between municipal officials, industries and provincial regulators. Some municipalities report weighed wastes, while others report estimates based on the numbers of truckloads. Still others rely on consultants' reports.

Initiatives Paper #4, which was released on June 1, 1992, clarifies the provincial position on the standards which should be applied in classifying and measuring waste diversion and disposal in Ontario.

2.3.4 *WRO Task Force on Municipal 3Rs Infrastructure*

In the fall of 1991, the Waste Reduction Office established a multi-stakeholder task force on municipal 3Rs infrastructure to develop strategies to deliver two mutually-reinforcing environmental and economic renewal objectives. They are:

- to anticipate the financial and technical needs of implementing a timely and cost-effective municipal waste management infrastructure;
- to further the development and expansion of Ontario's environmental industries to supply equipment and services appropriate for municipal and industrial needs, and to position these industries to satisfy a growing export market.

The task force first met in December, 1991. Representatives from the following organizations are involved:

- Association of Municipal Recycling Coordinators
- Association of Municipalities of Ontario
- Canadian Association of Recycling Industries
- Canadian Environment Industry Association
- Canadian Union of Public Employees
- Municipal Engineers Association
- Ontario Environmental Network
- Ontario Ministry of Agriculture and Food
- Ontario Ministry of Industry, Trade and Technology
- Ontario Waste Management Association

For more information, write or call:

Manager, Municipal 3Rs Infrastructure Unit
 Waste Reduction Office, Ministry of the Environment
 40 St. Clair Ave. W., 7th Floor
 Toronto, ON M4V 1M2
 Tel. (416) 325-4440 · Fax (416) 325-4437

2.3.5 *Green Industry Development*

Green industries provide goods and services that contribute to improving the environment through such measures as energy and water conservation, waste reduction, and prevention of hazardous emissions. In Ontario, this sector consists of more than 1,800 companies, accounts for more than \$2 billion in sales, and employs more than 28,000 workers.

As part of its investment and industrial development strategy, the government of Ontario is committed to a Green Industry Strategy that will support environmental goals and will make Ontario a leading producer and exporter of environmental goods and services. This strategy is an inter-ministerial project which is co-ordinated by the Ministry of Energy.

The strategy encourages efforts to develop markets for green products by supporting "greening" initiatives in both the residential and the IC&I sectors. It also includes supplier development and assistance initiatives to help Ontario businesses benefit from increased opportunities related to environmental improvements.

For more information on green industry development in Ontario, write or call:

Assistant Deputy Minister
Green Industry Project, Ministry of Energy
56 Wellesley St. W., 10th Floor
Toronto, ON M7A 2B7
Tel. (416) 327-2983 Fax (416) 327-1216

2.3.6 *Green Workplace Program*

To lead by example, the Ontario government has put into place an aggressive waste and energy reduction strategy for its own ministries, agencies and buildings. This is being done as part of the Green Workplace Program. The objectives of the program are to:

- reduce waste in government-owned buildings by 35 per cent by the end of 1992 and by 50 per cent by 1995, compared with base year estimates for 1987;
- improve the energy efficiency of government buildings and operations by 20 per cent by the year 2000;
- encourage environmentally-sensitive procurement policies so that government purchasing power is used to stimulate markets for goods with a high recycled content.

The ongoing development of effective public sector purchasing standards and specifications for recycled and re-used materials will expand the market for secondary materials and will promote the use of these standards and specifications in the public and private sectors.

The following procurement measures are already in place:

- There are mandatory guidelines for using recycled paper and re-refined lubricating oil;
- Environmental Choice Program guidelines are now mandatory;

- All government tenders over \$25,000 must contain environmental specifications or considerations;
- The Provincial Office Products Centre carries over 100 environmentally-sound products.

Green Office of the Future

The Green Workplace Program, together with ORTECH International and the Greater Toronto Home Builders' Association, displayed their jointly developed "Green Office of the Future" at the 1992 Ottawa and Toronto Business Shows (April 28, 29 and May 5 and 6 respectively). The "Green Office" demonstrated how recycled building materials may be used effectively to divert some of the building waste now going to landfill sites. Waste reduction, energy conservation, and improved indoor air quality strategies were also demonstrated.

For more information on the Green Workplace Program, write or call:

Manager, Government Liaison
 Green Workplace Program, Ministry of Government Services
 900 Bay Street, Room M2-59, Macdonald Block
 Toronto, ON M7A 1N3
 Tel. (416) 327-4192 Fax (416) 327-4193

2.3.7 Build Green Program

In 1991, ORTECH International and the Greater Toronto Home Builders' Association (GTHBA) joined forces to launch the Build Green Program. With the support of the Ontario ministries of Environment, Housing and Government Services, the federal Department of Industry, Science and Technology as well as the Canada Mortgage and Housing Corporation, the Home Builders' Association set about to increase industry and public awareness of the many building materials with recycled content. The association also demonstrated that environment-friendly building materials could be used in construction.

The first major project of the Build Green Program was the construction of the "Green Dream Home", the world's first dwelling made with recycled and re-used materials. The home was displayed during the 1991 Fall National Home Show in Toronto (Sept. 19-23). The materials used to construct the home, such as glass, ceramics, vinyl, slag, tires, newsprint, wood scraps, asphalt shingles and polyethylene terephthalate (PET) plastic containers and other plastic materials meet or exceed current building standards.

The Build Green Program sponsored another program called Build Green Street at the 1992 Spring National Home Show (April 10 to 19). The Build Green Street project is intended to encourage builders and the public to close the recycling loop by promoting the use of recycled building materials in new home construction. ORTECH International and the Greater Toronto Home Builders' Association were the major organizers of the display, which showed off innovations in the manufacturing and retailing side of the recycling industry.

For more information on the Build Green Program and the Build Green Street project, write or call:

Manager, Build Green Program
ORTECH International
2395 Speakman Drive
Mississauga, ON L5K 1B3
Tel. (416) 822-4111 Ext. 307 Fax (416) 822-4416

2.4 Overview of Ministry of the Environment and Private Sector 3Rs Funding Programs and the WRO's Waste System Financing and Market Development Initiatives

The ministry assists municipalities, industries and researchers with their 3Rs and waste management programs, research initiatives and pilot projects through a number of funding programs. This section contains descriptions of specific programs and a brief history of industry's role in supplementing provincial funding.

2.4.1 Municipal 3Rs Funding Programs

Since the early 1970's the ministry has provided financial assistance to non-profit groups and municipalities for 3Rs projects and programs through a variety of grant programs. In June 1987, the ministry announced that \$9 million would be made available to fund waste management and 3Rs programs. Since then, annual provincial budget allocations for 3Rs programs have grown steadily. In 1991, more than \$50 million was allocated for funding municipal 3Rs. Five programs are described below (see also Table 1).

Municipal Reduction/Re-use Program

The Municipal Reduction/Re-use Program provides grants to municipalities for such projects as home composting programs or waste reduction and public education campaigns. The projects must be aimed at changing consumer and householder habits and attitudes towards generating waste.

By August 31, 1992, the ministry had approved grants totalling \$17 million to 282 municipalities for over 570,000 home composters and just under \$1 million for advertising and promotional initiatives.

Municipal Waste Recovery Program

The Municipal Waste Recovery Program focuses on recovering useful products or materials from the waste stream. These may include compost or wood chips which may be used in flower beds.

From the program's inception to August 31, 1992, the ministry has approved \$9 million in grants to 53 municipalities for recovery projects. Of this, \$3 million has been for demonstration projects. In the early days of the program, most municipal proposals under this program have been for small leaf and yard waste composting sites. In fiscal year 1991-92, more proposals came in for larger municipal composting sites and for demonstration projects involving wet/dry collection systems.

Municipal Recycling Support Program

The ministry supports municipal recycling projects such as the Blue Box through the Municipal Recycling Support Program. Until 1991, operating cost support was limited to five years and was based on a declining percentage of 50 per cent to 10 per cent of gross costs or net costs (whichever was lower) over the five years. In fiscal year 1991-92, the program was enhanced to provide one-third funding for operating costs to those municipalities in the third to fifth year of their Blue Box program. Municipalities in the first and second year of their programs continue to receive 50 per cent and 40 per cent funding respectively. Municipalities that have been funded for the full five years are expected to be eligible for another three years. In sum, Municipal Recycling Support Program grants now cover between one-third to one-half of the operating costs of Blue Box programs in Ontario.

The projects funded involve the collection of recyclable materials from single family and multiple-unit dwellings, as well as depot collection systems in rural areas. Most municipalities collect newspaper, glass, metal cans and soft drink containers. The program also helps municipalities expand the types of materials collected to include cardboard, fine paper, white goods (appliances), telephone books, textiles and a variety of plastics.

Total ministry spending for the Municipal Recycling Support Program from 1987 to the end of 1991 was approximately \$69.2 million, with a further \$3.2 million committed. By the end of 1991, approximately 2.83 million of Ontario's 3.85 million households had access to multi-material recycling programs.

Approximately 400,000 tonnes of recyclable materials were diverted in 1991. More than 1.4 million tonnes had been diverted through such programs by the end of 1991.

Student Action for Recycling (STAR)

STAR provides financial support for recycling activities in schools. Assistance for expenditures on both capital equipment and salaries for staff may be obtained through the program.

To encourage municipalities to assist in the implementation of recycling initiatives at schools, municipalities are eligible to apply for 100 per cent funding for the purchase of vehicles for collecting the recyclable materials generated at participating schools.

By August 31, 1992, a total of 40 school boards had applied for, and received funding under the STAR program. About 2,600 schools are now participating in recycling programs. An estimated 6,000 tonnes a year of recyclable materials are diverted from landfill sites through the STAR program.

Household Hazardous Waste Collection Program

This program provides funding to municipalities and community associations to establish multi-material Household Hazardous Waste collection projects. Grants are available for special waste day or weekend events, or for permanent depots. Provincial promotional material also is provided on request.

For more information or application forms for any of the municipal waste management funding programs described above, write or call:

Municipal 3Rs Funding Unit, Waste Reduction Office
Ministry of the Environment
40 St. Clair Ave. W., 7th Floor
Toronto, CN M4V 1M2
Tel. (416) 325-4440 Fax (416) 325-4437

2.4.2 Other Provincial Funding Programs

The ministry has a number of other support programs in place to assist innovative projects, research and development activity on 3Rs technologies, and an increased awareness of environmental problems. This section briefly describes some of those programs.

Industrial Waste Diversion Program (IWDP)

This program is administered by the ministry's Waste Management Branch. The program was established to provide financial assistance to help IC&I sectors to undertake waste diversion projects.

Private sector industries, commercial operations and institutions are eligible for funding support under this program. Eligibility and the amount of funding is largely determined by the effect which the proposed project will have on helping the province achieve its waste diversion targets of at least 25 per cent by 1992 and at least 50 per cent by 2000.

Each project submitted for funding assistance must demonstrate clearly that it will divert waste from disposal using a 3Rs approach. Examples of eligible projects are:

- new facilities and processes for reduction, re-use and recycling of IC&I wastes;
- modifications to existing processes, equipment or operations to divert waste from disposal;
- demonstration of technology and pilot/research projects aimed at implementing new waste diversion methods, including process or equipment evaluations.

For more information or application forms for industrial 3Rs funding programs, write or call:

Supervisor, Industrial 3Rs Funding Unit
Waste Management Branch, Ministry of the Environment
2 St. Clair Ave. W., 14th Floor
Toronto, ON M4V 1L5
Tel. (416) 323-5182 Fax (416) 323-5031

Environmental Research Program (ERP)

Ontario encourages excellence in research through the Environmental Research Program. Since 1977, this program has supported nearly 600 research projects at universities and private laboratories.

Research projects fall into six categories:

- air quality

- water quality
- liquid and solid waste
- analytical methods and instrument development
- environmental socio-economics
- multi-media contaminants and biotechnology

Each November, with help from the ministry's branches and regional offices, the ministry's Research Advisory Committee, prepares a document on Research Needs. This report summarizes the ministry's long-term needs in the six research categories. Researchers are then invited to submit funding applications addressing these needs.

During the course of a project, funds are released upon the provision of acceptable progress reports. Researchers also may be required to deliver at least one presentation at the ministry's annual fall Technology Transfer Conference.

The Environmental Technologies Program (ETP)

The Environmental Technologies Program was launched in 1990 to help develop new technologies that will overcome environmentally damaging practices. It provides financial support for the technological innovations needed by Ontario's industries to adhere to environmental protection standards.

Typical ventures eligible for funding include:

- research and development of an innovative process or product;
- equipment prototype development and testing;
- pilot-scale equipment refinement and adaptation;
- field trial and/or demonstration of innovative technologies to determine system performance, reliability and cost-effectiveness;
- initial demonstration of foreign technologies to determine suitability to Ontario conditions.

**Table 1 – Summary of MOE Expenditures and Tonnes of Waste Diverted
for Four Municipal 3Rs Funding Programs, 1987-1991**

Municipal 3Rs Funding Program	MOE Expenditures 1987-1991 (millions)	Thousands of Tonnes Diverted	Number of Dwellings Served, Units Distributed or Projects Funded
Municipal Recycling Support Program (MRSP)	\$69.2	1,400	2.8 million residents served by December 1991
Municipal Reduction & Reuse Programs (MRRP)	\$8	400	570,000 home composters distributed
Student Action for Recycling (STAR)	\$1.2	18	40 school boards funded
Municipal Waste Recovery Program	\$4	no data available	53 projects funded

Funding is available for up to 50 per cent of a project's costs but only the cost incurred developing or demonstrating the technology are eligible. Costs associated with commercialization, full-scale production and marketing are not funded through this program. (Other government resources are available).

Preference usually is given to technologies that prevent or reduce pollution at the source, rather than at the end of the pipe or stack. There is a maximum of \$500,000 allocated per project per year.

For more information or application forms for the Environmental Technologies Program or the Environmental Research Program, write or call:

Research and Technology Branch
Ministry of the Environment
135 St. Clair Ave. W., 12th Floor
Toronto, ON M4V 1P5
Tel. (416) 323-4649 Fax (416) 323-4437

The Environmental Awareness and Education Program (EAEP)

The Environmental Awareness and Education Program, which used to be called the Miscellaneous Grants program, provides financial assistance to projects designed to encourage environmentally friendly lifestyle changes. Organizations which are eligible for funding include schools, universities and municipalities as well as community and interest groups and non-profit, incorporated organizations. Projects qualifying for assistance range from conferences, workshops and theatrical presentations to newsletters, fact sheets and technical reports.

For more information or application forms for this program, write or call:

Research and Technology Branch
Ministry of the Environment
135 St. Clair Ave. W., 12th Floor
Toronto, ON M4V 1P5
Tel. (416) 323-4649 Fax (416) 323-4437

2.4.3 Private Sector 3Rs Funding Programs

In the past six years, some private sector associations have offered funding to groups and municipalities undertaking ministry-approved 3Rs programs. In this section, two of those programs are profiled, one offered by OMMRI and another by the Ontario Soft Drink Association.

Ontario Multi-Material Recycling Incorporated (OMMRI)

OMMRI was formed in 1986 by the Ontario Soft Drink Association (OSDA) and its packaging suppliers, to provide a focus and funding mechanism for the development of a recycling infrastructure.

Initially \$1.5 million was allocated to match provincial funds. In 1987, it was evident that this was insufficient. OMMRI then committed a total of \$20 million over four years. These funds, too, were matched by the provincial government.

To assist municipalities to expand their programs, and to meet a provincial challenge, OMMRI expanded to represent six sectors. Collectively, these sectors were to provide \$45 million of support over five years. The sectors represented by OMMRI II are:

- grocery distributors
- grocery product manufacturers
- printed paper users
- packaging industry
- plastics
- soft drinks

The additional funding is to be committed to working with municipalities and the province to expand Blue Box services to households, including multi-unit dwellings, not covered by current programs.

For more information on OMMRI or application forms for OMMRI programs, write or call:

Manager, Municipal Support
OMMRI: Corporations in Support of Recycling
40 King St. W., Suite 3005
P.O. Box 316
Toronto, ON M5H 3Y2
Tel. (416) 594-3456 Fax (416) 594-3463

2.4.4 WRO Initiatives Paper #5: Roles and Responsibilities for Funding Waste Systems

The need to restructure current funding arrangements for 3Rs and waste management programs in Ontario has been recognized by the provincial government. This issue will be examined in a position paper, tentatively known as *Initiatives Paper #5*. It now being prepared by staff in the Waste Reduction Office and the Waste Management Branch of the Ministry of the Environment, with the assistance of staff from several other ministries in the Ontario government.

The province's objective is to develop a sustainable regime for residual wastes and recyclable materials. To achieve this objective, the province is looking at a range of policy options to encourage product stewardship and support of the 3Rs waste management hierarchy of reduce, reuse and then recycle.

For more information on *Initiatives Paper #5*, write or call:

Manager, Policy and Programs Section
Waste Reduction Office, Ministry of the Environment
40 St. Clair Ave. W., 7th Floor
Toronto, ON M4V 1M2
Tel. (416) 325-4440 Fax (416) 325-4437

2.4.5 WRO Market Development for Reuseables, Recyclables and Compost Products

The WRO has established a Materials Utilization Section to assist in the development of initiatives that support the opening of markets for reusable and recyclable materials. One such initiative is the establishment of multi-stakeholder strategy teams to prepare comprehensive 3Rs plans that emphasize the development of adequate end-use markets. Provincial plans are being developed for each of the following materials:

- construction materials and materials from demolition sites (C&D)
- organics
- paper fibre
- plastics
- scrap tires
- sewage sludge

Proposals are being developed with key stakeholder groups to reach consensus on ways of ensuring that the growth in demand for secondary materials keeps pace with the growth in supplies.

In addition to the work of these strategy teams, communication options that include extensive networking, workshops, seminars, and one or more public discussion papers also are being considered. To support current markets and develop new ones, the WRO will continue to fund the Ontario Waste Exchange and the Canadian Waste Materials Exchange.

For more information on the WRO's work on market development, contact:

Manager, Materials Utilization Section
Waste Reduction Office, Ministry of the Environment
40 St. Clair Ave. W., 7th Floor
Toronto, ON M4V 1M2
Tel. (416) 325-4440 Fax (416) 325-4437

2.5 Communication and Education Initiatives

As individual and community responsibility for, and participation in, waste management and 3Rs activities increases, so does the need for community-based education and information exchange. Some of the newer waste management initiatives undertaken by the province focus on setting a good example, training and consulting with those directly affected by change.

This approach, in combination with the use of new regulations and legislation, will result in the development of waste management systems very different from those of the past.

To support its efforts to promote the 3Rs, the province has initiated a number of public education programs designed to shape public values and attitudes about consumption, and to provide "how to" information on waste reduction activities.

2.5.1 Teaching About Garbage (TAG)

This waste management curriculum is being developed through the ministry's Public Affairs and Communication Services Branch. The purpose of the program is to help teachers integrate waste management topics into the school curriculum. Eventually there will be TAG modules for all grades from kindergarten to the end of high school. Modules for use in kindergarten to grade three, in grades four to six and in grades seven to nine are available now.

For more information or application forms for any of the communications-related waste management funding programs described above, write or call:

Manager, Waste Communications Unit
Public Affairs and Communications Services Branch
Ministry of the Environment
135 St. Clair Ave. W., 2nd Floor
Toronto, ON M4V 1P5
Tel. (416) 323-4663 Fax (416) 323-4469

2.5.2 Education and Training Materials in Support of 3Rs in the IC&I Sectors

As indicated above (see Section 2.2.2), the WRO is developing guidelines for waste audits and the development of waste reduction workplans to assist IC&I generators in meeting their obligations under the proposed 3Rs regulations.

As a first step in developing programs to support and assist IC&I generators, the Waste Reduction Office sponsored a series of meetings, in November and December of 1991, with representatives of various IC&I sectors (see section 4.1).

The meetings provided the WRO with background information to evaluate the types of assistance appropriate to each sector and to build avenues of communication with specific sector groups. Future programs will be designed to encourage waste reduction initiatives undertaken by IC&I generators and their associations, as well as to provide mechanisms through which the Waste Reduction Office will stay informed of generators' problems and needs.

One of the projects undertaken in response to needs identified at the 1991 meetings is a curriculum on waste audit and reduction operations. The ministry hired the Association of Municipal Recycling Co-ordinators (AMRC) to prepare this package of training materials. It will be used primarily to train employees of IC&I establishments and representatives of industrial and company associations such as Canadian Federation of Independent Business. The curriculum, which may be covered during a three-day intensive seminar/workshop, will include the following topics:

- definitions and terminology (e.g. generation rates, diversion, and disposal);
- principles of diversion, disposal, measurement, and monitoring;

- data collection and analysis;
- setting up a workplace waste reduction committee;
- conducting IC&I waste audits including consideration of alternate methods;
- developing a waste reduction plan;
- identifying opportunities for reduction and re-use;
- establishing procurement practices;
- developing source separation programs;
- marketing materials through off-site recycling/re-use and waste exchanges;
- staff training;
- regulatory and contractual considerations;
- analyzing the costs and benefits of a waste reduction program.

3.0 Municipal Context

This chapter describes municipal roles and responsibilities in the GTA. It provides both an overview and descriptions of activities and programs under way in GTA municipalities in 1991. The information in this chapter is current to December 31, 1991.

3.1 Municipal Legal Authority

In the GTA, municipal laws on waste management powers and 3Rs activities are a patchwork quilt. Upper-tier municipalities are responsible for disposal. Under the *Municipal Act*, lower-tier (or area) municipalities have authority for the collection of solid waste. Since the *Municipal Act* is silent on who has authority over the collection of recyclable material, area municipalities have tended to assume responsibility for it. In some cases, GTA area municipalities have contracted out to the private sector the collection of residential solid wastes and recyclable materials.

There are five regional municipal statutes involved. They are:

- *Regional Municipality of Durham Act*
- *Regional Municipality of Halton Act*
- *The Municipality of Metropolitan Toronto Act*
- *Regional Municipality of Peel Act*
- *Regional Municipality of York Act*

Each regional municipal statute confers slightly different 3Rs-related powers on the respective upper-tier government (see Table 2).

3.2 Overview of 3Rs Activities in GTA Municipalities

The following summarizes the programs and practices available in the GTA (see also Table 3):

- All GTA area and upper-tier municipalities provide curbside Blue Box collection and depot recycling services to their residents. Collection is usually carried out by area municipalities while processing and marketing are usually the responsibility of the region.

- Virtually every single-family dwelling in the GTA is served by a Blue Box program or by rural depots. Most multi-unit dwellings in Halton and York and more than half of those in Metro Toronto and Peel are served by recycling programs. Durham has a number of public depots which residents of multi-unit dwellings may use, but no curbside recycling program for residents of multi-unit buildings and complexes.
- All GTA curbside Blue Box programs collect newspaper, cans, glass and polyethylene terephthalate (PET) plastic. Some municipalities collect additional materials, including magazines, telephone books, fine paper, used clothing, mixed plastic and old corrugated cardboard (OCC).
- Most municipalities carry out some form of periodic or seasonal collection for white goods and leaves.
- With assistance from the ministry's Municipal Reduction/Re-use Program, backyard composters are supplied at a subsidized rate throughout the GTA. By the end of 1991, more than 175,000 composters had been distributed.
- Household Hazardous Waste materials are collected at permanent depots in Halton, Durham, Peel and Metro Toronto. Peel and York also hold special collection days. Metro Toronto and Durham operate "Toxic Taxi" services which pick up household hazardous waste materials from households on a request basis.
- At its two smaller landfill sites, Peel Region operates reusable item exchanges for residential goods. Non-profit organizations operate a number of re-use facilities and programs across the GTA.
- To support their 3Rs programs, most municipalities have developed and implemented education and promotion materials and programs. A variety of media outlets, promotional opportunities and educational materials are used including newspaper, radio and transit advertising; brochures, posters and booklets; and public seminars and speaking engagements by municipal staff.
- Assistance to the IC&I sector varies across the GTA. Durham, Metro Toronto and Peel staff provide waste assessments to industry. Staff members also help to find markets for recyclable and reusable materials through publication of directories and referrals to waste exchanges.

**TABLE 2 - DIVISION OF WASTE MANAGEMENT ROLES AND RESPONSIBILITIES
BETWEEN GTA REGIONAL AND AREA MUNICIPALITIES**

Regional Municipality	Residential Blue Box		Leaf and Yard Waste Composting	
	Regional Role	Area Municipality Role	Regional Role	Area Municipality Role
METRO	<ul style="list-style-type: none"> • finance • process & market • promote • plan 	<ul style="list-style-type: none"> • plan and operate collection services • promote 	<ul style="list-style-type: none"> • own and operate composting facility for Toronto, East York and York • promote 	<ul style="list-style-type: none"> • Etobicoke, North York & Scarborough own & operate facilities with Metro funding • promotion
PEEL	<ul style="list-style-type: none"> • finance • process, market & collect (C) • promote 	<ul style="list-style-type: none"> • Caledon operates own collection program; Brampton and Mississauga contract out collection 	<ul style="list-style-type: none"> • finance collection & operations 	<ul style="list-style-type: none"> • plan collection & operations • promote
YORK		<ul style="list-style-type: none"> • finance and plan • collect • promote • process & market 	<ul style="list-style-type: none"> • operate composting facility • promote 	<ul style="list-style-type: none"> • plan, finance and operate collection and composting facility (C)
DURHAM	<ul style="list-style-type: none"> • finance • process & market • promote • collect from depots (C) 	<ul style="list-style-type: none"> • collect (C) 	<ul style="list-style-type: none"> • plan & finance • provide containers at transfer station (C) • operate one site for entire region (C) 	<ul style="list-style-type: none"> • participating area municipalities plan, finance and promote collection
HALTON	<ul style="list-style-type: none"> • finance & plan • promote • collect, process & market (C) 	<ul style="list-style-type: none"> • Halton Hills collects on behalf of region • promote 	<ul style="list-style-type: none"> • provide "Green Bins" at transfer stations 	<ul style="list-style-type: none"> • finance • plan • operate • promote
<p>* Information in this table current to December 1991</p> <p>(C) -- service contracted out by upper-tier or area municipality</p>				

- All GTA upper-tier municipalities have banned the following materials from disposal - tires, drywall, wood and old corrugated cardboard. Peel banned all paper fibre, container glass, metal, and construction/demolition rubble on January 1, 1992. Metro Toronto banned usable off-specification and surplus goods such as hard and soft cover books and unsold clothes, clean fill, concrete and rubble, scrap metal and office paper on July 1, 1991 (Metro Toronto's bans apply to the waste disposed by York and Durham regions). Halton also bans all materials collected in its Blue Box program.
- Tipping fees at landfill sites operated by GTA regions in 1992 were as follows:
 - Peel - \$150 per tonne;
 - Halton - \$150 per tonne;
 - Metro, York and Durham - \$152.25 per tonne.
- Pilot projects being undertaken by GTA municipalities include:
 - a wet waste collection and central composting program servicing approximately 13,000 households in Metro Toronto;
 - a central composting program for source-separated organic waste from 8,000 households in Mississauga;
 - a plastic film collection program in Halton;
 - an expanded Blue Box/compost pilot program in Halton.

3.3 Municipal 3Rs Activities in the GTA

Upper-tier and area municipalities are responsible for the development and implementation of most of the 3Rs programs which allow individuals and businesses to participate in 3Rs activities. This section provides detailed descriptions of the wide range of municipal 3Rs activities undertaken in the GTA in 1991.

3.3.1 *Durham Region*

Residential Blue Box

All area municipalities in Durham Region have established residential Blue Box programs to collect newspaper, glass containers and metal cans as well as plastic (PET) soft drink containers. Corrugated cardboard and telephone books were added in February 1992. Currently, Durham's curbside recycling program covers almost every semi-detached and detached single family homes in residential subdivisions.

Areas not served by regular curbside pick-up are provided with depots, usually recycling domes. Durham operates 38 of these recycling depots for glass, newspaper and cans throughout the region. The depot network was expanded in 1991 to service some apartments, condominiums, community centres, parks and transit stations. Corporations have been invited to participate in the "adopt a depot" program to help offset costs. The program has been so successful that all existing depots now have corporate sponsors.

In some municipalities, there are special collection programs for leaves, Christmas trees and white goods (appliances) on a periodic basis. Other recyclable materials such as tires, drywall, batteries, concrete, brush, scrap metal, propane cylinders, waste oil and wood waste may be taken to one of Durham's three transfer stations.

The Durham Recycling Centre services a number of schools in the region as well as the Region's Blue Box collection program. Some schools have multi-material collection as well as fine paper collection programs. Ten schools have fine paper and pop can recycling programs. Expansion of the pop can collection program is under way. Durham has prepared a brochure listing 3Rs initiatives specifically for schools.

Leaf and Yard Waste Composting

In 1988, Durham started a leaf collection program in Whitby. A year later in 1989, the region expanded the program across the whole municipality. Residents in a number of area communities were provided with identification tags to mark the bags containing leaves. Residents then put these bags out with the regular household garbage bags. The tags were unpopular and in 1991 residents were asked to put leaves out in clear plastic bags for collection.

Backyard Composting

In the fall of 1990, a pilot backyard composting program in Pickering began. One-thousand households involved in the program within a specified area were asked to weigh

**Table 3 -- SUMMARY OF 3Rs PROGRAMS IN THE GTA REGIONAL MUNICIPALITIES
CURRENT TO 31 DECEMBER 1991**

Program	Durham	Halton	Metro	Peel	York
Residential Blue Box	<p>All GTA area and upper-tier municipalities actively participate in Blue Box programs. Collection is most often carried out by area municipalities while processing and marketing are usually the responsibility of the region.</p> <p>Virtually every single family dwelling in the GTA is served by a Blue Box program or rural depots. All GTA municipalities collect newspaper, cans, glass and PET plastic. Some municipalities collect additional materials, including old corrugated cardboard (OCC), telephone books, magazines, fine paper, used clothing, HDPE, and mixed plastic</p>				
Apartment recycling	Multiple-unit dwellings not serviced, except through depots	More than 90% of multiple-unit dwellings serviced	45% of multiple-unit dwellings serviced	More than 70% of multiple-unit dwellings serviced	More than 80% of multiple-unit dwellings serviced
Public recycling facilities	38 recycling domes service areas not served by Blue Box program	Recycling domes service rural and urban public areas; 8 full-service recycling depots; 6 newspaper depots at GO stations	61 recycling domes in public areas; newspaper depots in Toronto Transit Commission subway stations	5 depots	Depots at Keele Valley landfill and in some of the area municipalities
IC&I programs	IC&I waste audits, technical assistance, education	No regional programs	IC&I waste audits, technical assistance, market directory	IC&I Waste audits, technical assistance, seminars, and market directory	No regional programs. Some area municipalities offer advice and assistance to IC&I sectors.
Home composting	Over 20,000 composters subsidized by Ministry of the Environment	Over 18,000 home composters subsidized by Ministry of the Environment	Over 80,000 home composters subsidized by Ministry of the Environment	Over 42,000 composters subsidized by Ministry of the Environment	More than 19,000 composters distributed by area municipalities

Household hazardous waste	2 permanent HHW depots; Toxic Taxi	2 permanent HHW depots	10 permanent HHW depots; Toxic Taxi	3 permanent HHW depots; periodic HHW days	periodic HHW days
Education and promotion	Brochures; IC&I market directory, posters and award program	Joint responsibility of area municipalities and region. Region does all promotion for HHW program.	Administered \$2.5 million GTA-wide waste reduction campaign, jointly with Ministry of the Environment. Metro level advertising campaigns for Blue Box program, yard waste, IC&I waste, composting. Educational material such as videos, office paper recycling guide, guide to IC&I waste reduction, markets directory, education kit for schools.	Advertising campaigns for composting and 3Rs; classroom presentations by staff; 3Rs information kit; and posters to businesses.	Advertising and promotion carried out by the 9 area municipalities to support their 3Rs programs; region advertises for its HHW program. and for its leaf and yard waste composting facility.
Waste exchange and salvage		Community-based waste exchange, re-use and recycling facility (WasteWise)	Off-specification and surplus goods are banned from landfill. Donations of these materials to charitable organizations is encouraged. Considering removing prohibitions on scavenging.	"Free stores" at Albion and Caledon landfill site for usable furniture, appliances etc; and waste exchange program for IC&I sector.	
Pilot projects		Plastic film recycling; pilot three-stream collection (expanded dry)	pilot three-stream collection (separate wet)	pilot two- and three-stream collection (separate wet)	
Landfill bans	Metro's bans apply.	OCC newspaper, glass, food and beverage containers, aluminum and steel containers, PET, residential cardboard, drywall, tires, scrap metal, white goods.	OCC, tires, drywall, scrap metal, clean fill, concrete and rubble, wood waste, office paper.	OCC, tires, wood, cardboard, drywall. Waste paper fibre, container glass, metal construction/ demolition wastes to be added Jan. 1/92.	Most of Metro's bans apply.

Table 3, page 2

Information current to 31 December 1991.

their organic waste for two years so that data on the amount of waste diverted from landfill sites could be recorded. Preliminary results from the program indicate that 75 per cent of the original 1,000 households were still participating after one year and that they diverted an average of 16 per cent of their household waste. An earlier study in Newcastle indicated that up to 32 per cent of household waste was diverted at an estimated cost of \$18.75 per tonne. The discrepancy between the diversion rates in the two studies is being investigated.

Several varieties of composters have been made available to all Durham residents since April 1991. Twenty-thousand had been distributed by the end of 1991.

Central Composting

A pilot project is being planned to collect and compost organic waste. Initially, the facility will be designed for yard waste. Other types of organic waste will be considered at a later date.

Household Hazardous Waste

Durham operates a permanent HHW depot at its Oshawa transfer station. Durham residents also bring their household hazardous waste materials to the Brock West landfill site depot operated by Metro Toronto. A paint exchange opened at the Oshawa transfer station in 1992.

In 1990, a "Toxic Taxi" pilot program began in the Region. On request, the specially equipped van picked up household hazardous waste at individual homes. The region began implementing the Toxic Taxi concept in other Durham area municipalities in 1991. The program was discontinued in the fall of 1992.

Education and Promotion

Durham has produced a series of brochures for residents, schools and users of their recycling depots. Other regional 3Rs programs are promoted through radio and newspaper advertising.

In addition to its *Waste Reduction and Recycling Market Directory*, the region has produced a brochure and poster which promotes IC&I source separation. Both are distributed free of charge. Durham also has an award program to recognize significant diversion initiatives.

Industrial and Commercial Waste Diversion

Durham is assisting the industrial, commercial and construction/demolition sectors to reduce the amount of waste they generate and send to landfill sites. For example, the region has one staff member working with the IC&I sectors to help with waste audits, to find recycling market contacts and to improve overall waste management practices. Waste audits are performed free of charge. More than 500 industries have been contacted and many now provide regular reports to the region on the amount of waste they have diverted from disposal. As well, a study is being undertaken to demonstrate workable methods of recycling fine paper. The study will provide corporate and commercial property managers and tenants with the information they need to initiate and maintain such programs. Further, the Durham Recycling Centre provides collection services to some industries for materials such as cardboard, fine paper and pop cans.

Landfill Bans and Tipping Fees

A ban has been placed on tires, batteries, propane cylinders, waste oil and scrap metal at Brock West Landfill, and on leaves, brush, drywall, wood, old corrugated cardboard and white goods at all other Durham landfills.

Tipping fees were increased to \$150 a tonne from \$115/tonne in March 1991 at Brock West landfill site which is owned and operated by Metro Toronto, and to \$152.50 in January 1992.

Estimated Diversion

In 1991, Durham diverted more than 18,500 tonnes of Blue Box material from disposal. The region-wide leaf composting program diverted more than 2,000 tonnes of leaves in 1990 and 2,200 tonnes in 1991. With the addition of other yard waste in 1992, leaf and yard waste diversion is expected to reach about 5,000 tonnes.

For more information on Durham's 3Rs and waste management programs, contact:

Waste Reduction Division, Works Department
Regional Municipality of Durham
Box 623, 105 Consumers Drive
Whitby, ON L1N 6A3
Tel. (416) 668-7721 Fax (416) 668-2051

3.3.2 Halton Region

Residential Blue Box

Halton's urban residential sector is serviced by a mandatory Blue Box program, covering 85,000 single-family and 25,000 multiple dwelling units. The material recovery facility serving Halton is owned by the region but operated by a private sector company. Residential Blue Box materials collected include newspapers, glass, cans, PET, books, magazines, old corrugated cardboard and telephone books. Recycling domes have been set up and promoted to service both rural and high traffic urban public areas to supplement the region's urban residential programs. Residents also may drop off recyclable materials including old corrugated cardboard, drywall, scrap metals and Blue-Box-type recyclable materials at four waste container stations, one located in each area municipality.

In the fall of 1991, a pilot plastic film recycling program for collecting grocery bags in Burlington residential areas was carried out with PCL Packaging of Oakville. Residents were asked to place plastic bags in a clear blue bag for curbside collection.

Halton accepts limited quantities of recyclable materials generated by the IC&I sectors.

Leaf and Yard Waste Composting

Halton accepts yard waste for composting at its four transfer stations. The organic material is sent to a privately-owned and operated compost facility. All area municipalities collect leaves, brush and Christmas trees for composting. Oakville operates its own leaf composting site. Burlington, Halton Hills and Milton send their municipally-collected yard wastes to private facilities in Halton for composting. It is estimated that more than 15,000 tonnes of organic yard wastes are composted annually by the region and its area municipalities.

Backyard Composting

Halton's area municipalities have distributed more than 18,000 backyard composters. The municipalities also offer education programs on the use and benefits of home composting.

Expanded Blue Box/Compost Pilot Project

Halton ran a pilot "three-stream" program involving the collection of residential waste from 600, single-family units in the Joshua Creek area for 12 months starting June 1991. The purpose of the program was to investigate the collection and processing of three different streams of residential waste. They were wet waste (kitchen organic waste and yard waste), expanded dry waste (Blue Box recyclable materials plus additional materials) and other waste (garbage destined for disposal).

Residents were asked to separate yard wastes and kitchen vegetable scraps into clear plastic bags to be deposited at the curbside. These materials were collected once a week using municipal packer trucks and composted at a regional facility.

Each resident was provided with a 240-litre "Super Blue" caddy with wheels for collecting dry recyclable materials. These included the standard recyclable materials such as aluminum cans, glass, newspaper and PET plastic as well as rigid and film plastic, aluminum containers and foil, scrap metal, textiles and boxboard. Overtop loading recycling trucks were used for collection. The dry recyclable materials were sorted at Halton's material recovery facility before being sold.

Non-compostable and non-recyclable materials were collected separately, once a week, on the same day as recyclable and organic materials. Standard packer municipal vehicles were used. The program is still running and may be expanded.

Household Hazardous Waste Program

Halton offers a household hazardous waste program to reduce the amount of such waste being improperly disposed of in sewers and at disposal facilities. Some waste materials such as oil, paints, batteries and propane tanks are sent for recycling, while hazardous materials generally are sent directly for treatment and disposal. Halton operates two depots for receiving household wastes, one in Burlington and another in Milton.

Wastewise: Materials Salvage Program

A community resource centre called Wastewise accepts and sells non-toxic residential, commercial and industrial materials in Halton Hills. Funded by a number of government agencies, Wastewise was established in 1991 to divert reusable items from the disposal stream. Materials accepted at the facility include, but are not limited to, toys, furniture, clothing and office equipment.

Landfill Bans and Tipping Fees

Since the region's Burlington landfill site closed in late 1988, Halton has introduced a number of measures to reduce the amount of waste being transported out of the region for disposal. In the same year, the region initiated mandatory recycling of cardboard for the industrial and commercial sectors. Since then the ban on potentially recyclable materials has been extended to include clean newspaper, glass, food and beverage containers, aluminum and steel containers, PET containers, residential cardboard and drywall. In addition, Halton has restricted the disposal of tires, scrap metal and white goods or appliances.

Tipping fees in Halton region were decreased to \$150 a tonne in January 1992 from \$155 a tonne in 1991.

Estimated Diversion

The annual diversion rate for Halton's municipal 3Rs programs, based on 1990 and 1991 data, was approximately 35,000 tonnes.

For more information on Halton's 3Rs and waste management programs, contact:

Acting Director of Waste Management
The Regional Municipality of Halton
P.O. Box 7000, 1151 Bronte Road
Oakville, ON L6J 6E1
Tel. (416) 825-6030 Fax (416) 827-3660

3.3.3 Municipality of Metropolitan Toronto

Residential Blue Box

Metropolitan Toronto's six area municipalities run their own Blue Box collection programs, using public employees. Metro Toronto is responsible for processing and marketing the bulk of the recovered products. It has a contract with a private company to carry out these tasks. The program serves about 1,500,000 residents in almost 462,000 single-family dwellings. Expansion of the program to the one-third of Metro Toronto's population who live in apartments has started. More than 45 per cent of the apartment (buildings or units) are served.

Initially the Blue Box program focused on the collection of newspapers, glass containers, aluminum and steel cans and PET containers. As markets have become avail-

able, new materials have been added, including telephone books, magazines, corrugated cardboard as well as rigid plastic bottles and jugs.

To encourage on-the-go recycling, Metro Toronto began a Recycling in Public Places Program. More than eighty large blue recycling domes have been placed in various outdoor locations including parks, Exhibition Place, Ontario Place and outside the Sky Dome. Some take metal cans, glass bottles and jars. Others take plastic bottles and jugs, while others are for newspapers.

Leaf and Yard Waste Composting

Separate collections of leaf and yard waste take place across Metro Toronto from April to November. Residents are asked to place leaves and grass in clear plastic bags. The City of Toronto modified its fall leaf collection program in 1992. The city asked residents to place their leaves in piles on the side of road so that they could be vacuumed up by specially equipped trucks.

North York, Scarborough and Etobicoke operate their own leaf and yard waste composting sites, while Metro Toronto composts leaf and yard waste from the other three municipalities at the Avondale composting facility. This is an outdoor site located north of the Keele Valley landfill site.

The compost has been used as top cover on completed portions of the landfill site and as a berm to restrict soil erosion. The compost also has been distributed free of charge to Metro Toronto residents.

Backyard Composters

In July 1989, Metropolitan Toronto council approved the Metro Home Composting Program to encourage backyard composting. More than 80,000 subsidized units had been distributed by the end of 1991. That year Metro Toronto employed four composting information officers who conducted workshops and made presentations to educate the public about the benefits of composting.

Community Composting

In 1991, twenty-five community composting projects were operating. A three-bin composting unit was provided at a subsidized price to multi-residential dwellings including co-operative housing and apartment buildings.

Pilot "Wet Waste" Collection

Metropolitan Toronto ran a one-year pilot wet waste project to collect food waste at the curb from 15,000 homes in Etobicoke, North York and the City of Toronto. The purpose of the program was to test different collection methods. The old ministry resource recovery facility at Downsview was retrofitted to compost the collected material. Initial collection began in the City of Toronto in November and December 1991, other municipalities were added in 1992.

Household Hazardous Waste

The Household Hazardous Waste Program has been operating since 1988. Residents may take hazardous household products to one of ten permanent depots, or call the household hazardous waste hot line to arrange for pick-up by the "Toxic Taxi". Approximately 28,000 residents participated in Metro Toronto's program in 1991, delivering more than 880,000 kilograms to the region's household hazardous waste system.

Public and Industrial/Commercial Education

Approximately \$3.5 million was spent on 3Rs promotion and public education in 1991. Projects included a \$2.5 million GTA Waste Reduction Advertising Campaign, co-sponsored by the province, which ran ads in various Toronto media between December 1990 and December 1991. Other advertising campaigns dealt with promotion of the Blue Box, yard waste, and backyard composting programs. Advertising campaigns were augmented by promotional materials, including booklets, brochures, fact sheets, posters and displays. Two of Metro Toronto's more popular waste management publications were produced in five languages.

Metro Toronto staff work with the Recycling Council of Ontario (RCO) to co-ordinate programs funded by the Metropolitan Toronto Works Department. These include the Home Composting Education Project which trains volunteer master composters to teach composting to others; setting up composting demonstration sites; running composting workshops and providing the Ontario Recycling Information Service - a telephone hot line and resource library. Metro Toronto also operates an information hot line for residents who want to buy a composting bin or who have questions about composting.

Metropolitan Toronto has produced various educational materials to help promote the idea of responsible waste management. Some of the more widely-used items include:

- videos;
- a recycling markets directory;

- a guide to developing a commercial/industrial waste reduction and recycling plan;
- an office paper recycling guide;
- an education kit for schools.

In addition, Metro Toronto has started an anti-junk mail campaign which includes a sticker for residents who do not wish to receive junk mail in their mail boxes. This campaign also includes a request to Canada Post that it charge first class postage rates for non-addressed advertising mail.

Community Action Waste Reduction Grants

This program is designed to provide financial assistance to non-profit and community groups interested in developing waste reduction projects. During 1991, staff worked with a number of groups to help formulate grant proposals and applications. In 1991, a total of 44 proposals were awarded grants of up to \$167,800 to implement waste reduction projects.

Procurement

Metro Toronto is a founding member of the Governments Incorporating Procurement Policies to Eliminate Refuse (G.I.P.P.E.R.) Committee. The City of Toronto, (which purchases all of Metro Toronto's supplies) has implemented positive procurement policies which incorporate the use of recyclable and recycled materials, and guidelines requiring durable and reusable products.

Industrial/Commercial and Institutional Waste Diversion

To facilitate IC&I waste diversion, Metro Toronto's Works Department provides assistance to these sectors to implement reduction, re-use and recycling programs. Staff members conduct solid waste audits of businesses and institutions and assist building managers and tenants in developing strategies for waste reduction and recycling. This includes reviewing a company's waste management practices, the quantity and nature of waste generated and the processes which produced the waste. The audit process includes evaluating the reduction and recycling potential of the waste and developing strategies to divert the material. During 1991, Metro Toronto's IC&I staff also began conducting waste audits for Metro Toronto's agencies, boards, commissions and departments.

An industrial waste reduction hot line has been set up to provide industries with easy access to information. In 1991, Metro Toronto staff responded to more than 6,000 inquiries from the IC&I sector.

Depots are set up at selected Metro Toronto solid waste management facilities to receive source separated recyclable materials from small IC&I companies that do not generate sufficient quantities to warrant collection by private recycling companies. The depots accept old corrugated cardboard, glass, cans and plastic containers, newspapers, telephone books, drywall, leaves, yard waste, tires, scrap metal, wood and office paper.

Landfill Bans and Tipping Fees

One of the most effective waste diversion efforts aimed at commercial and industrial waste generators has been the banning of recyclable materials from Metro Toronto waste disposal facilities. The banned materials are old corrugated cardboard, tires, drywall, scrap metal, clean fill, concrete and rubble, wood waste, office paper, and off-specification goods.

On July 1, 1991, a zero tolerance of banned materials was implemented.

In addition, the disposal fee for mixed loads of waste was increased to \$150.00 per tonne at landfill sites and \$175.00 per tonne at transfer stations. An alternate rate of \$300.00 per tonne was also introduced for loads containing banned materials.

Diversion Estimates

The Blue Box and Blue Dome programs diverted more than 85,000 tonnes from disposal in 1991. Leaf and yard waste programs diverted 55,753 tonnes in 1991, and 692 tonnes of Christmas trees. More than 8,000 tonnes of white goods were diverted. Metro Toronto estimates that an additional 16,660 tonnes of organic waste was diverted by residents who used their backyard composters. These activities account for 166,494 tonnes of material diverted from landfill sites in 1991.

For more information on Metro's 3Rs and waste management programs, contact:

Manager, Waste Reduction and Recycling
Solid Waste Management Division
Station 1180, 19th Floor
Metro Hall, 55 John Street
Toronto, ON M5V 3C6
Tel. (416) 392-8506 Fax (416) 392-4754

3.3.4 Peel Region

Residential Blue Box

All the area municipalities in Peel region run well-established residential Blue Box programs which serve more than 200,000 households, 422 apartment buildings and multiple-unit dwellings, or 70 per cent of the region's households in multiple-unit dwellings as well as 243 schools. Mississauga's Blue Box program collects newspaper, glass, cans, a wide range of plastics, corrugated cardboard, magazines and textiles. Brampton and Caledon collect newspaper, glass, cans and two-litre plastic soft drink containers. Brampton also collects telephone books and white goods.

Public Recycling Depots

The region provides recycling bins at all three of its landfill sites for glass, cardboard, tires, drywall, metal, wood and paper fibre. Recycling bins are also provided by the Mississauga Clean City Campaign and a few industries.

Leaf and Yard Waste Compost Program

Peel Region operates a leaf composting site at the Britannia Road landfill site. Leaves collected in Mississauga are delivered to the Britannia site for composting. Brampton also operates a composting site. The region provided more than 30,000 biodegradable paper bags which were distributed to Caledon residents. The bags were filled with leaves, collected by Caledon and delivered to Peel's landfill site for composting. In addition to leaves, the area municipalities have expanded their special collection programs to include Christmas trees.

Backyard Composting

More than 42,000 backyard composters have been distributed to Peel residents since 1988, of which 17,500 were distributed in 1991. Composting diverts an estimated 10,000 tonnes of food and yard waste each year.

Pilot Composting Project

A one-year, 8,000-home pilot project was launched in October 1991 in Mississauga to collect and compost, at a central site, household organic wastes which had been separated in the home. The purpose of the project was to obtain data on alternative collection methods for organic wastes and dry recyclable materials.

Household Hazardous Waste Program

The region uses a combination of depots and Household Hazardous Waste Days to collect household and industrial wastes. In 1991, the region collected more than 311,000 litres of liquid hazardous wastes and used oil, 6,954 car batteries and 2,177 propane cylinders from more than 15,000 residents.

Reusable Item Exchange

At Peel's two rural landfill sites in Albion and Caledon, residents have the opportunity to bring potentially reusable items or to pick-up used items. In 1991, residents exchanged more than 5,800 items, diverting approximately 217 tonnes.

Public and IC&I Education

Advertising and education campaigns support the region's 3Rs programs. Education programs include school presentations by Peel Region staff and a 3Rs information kit prepared by the Joint Committee for the Environment of the Separate and Public Boards of Education of Peel. The committee has established recycling programs in approximately 95 per cent of the schools and other buildings owned by the two school boards.

Peel also sponsors the annual Industrial Waste Reduction Seminar with guest speakers, case study presentations and panel discussions. The seminar, which has been running for the past six years with great success, gives Peel business people an opportunity to learn more about regional 3Rs programs. More than 350 delegates and exhibitors attend each year.

In addition, 10,000 posters were distributed to the IC&I sector to encourage local businesses to become environmentally-friendly.

Help on Waste (HOW) and Technical Services

Peel has established a range of initiatives directed at IC&I generators interested in reducing waste. The region provides a waste exchange system to assist companies in locating markets for material such as paper, metal, plastics, glass, asphalt and drywall. The region also runs the Clean Fill Referral Service which provides listings for available and required materials. In 1991, a total of 1,956 enquiries were made to Peel's HOW program (the former Waste Exchange). Peel also publishes an Industrial/Commercial Waste Diversion and Recycling Directory to help companies find outlets for their waste materials.

Peel provides free waste assessments for businesses that request assistance in analyzing their waste stream. In 1991, the region's staff did 115 waste assessments.

The region works with private material recovery facilities to support the material bans program and material recovery from IC&I wastes. The region helps to establish private material recovery facilities by processing and obtaining Certificates of Approval; helping potential facility owners identify zoning requirements; providing waste data and market statistics to the owners; offering research and development assistance; and its own pro-active purchasing policies, contracts and material bans. As well, privately-operated material recovery facilities are listed in the region's regularly updated *Waste Diversion and Recycling Directory*.

Material Bans and Tipping Fees

Materials banned from disposal by IC&I generators at regional landfill sites include tires, old corrugated cardboard, drywall and wood. Paper fibre, glass containers, metal (including white goods) and construction/demolition rubble were banned in January 1992.

The landfill tipping fee was increased to \$150 a tonne from \$125 per tonne January 1, 1992.

Estimated Diversion

It is estimated that 51,461 tonnes of residential waste material was diverted from landfill sites in 1991. This included Blue Box recyclable materials, old corrugated cardboard, drywall, tires, metal, glass, and paper fibres as well as Christmas trees and grass clippings. A total of 31,309 tonnes of material collected in the Blue Boxes program were diverted from landfill sites in 1991.

For more information on Peel's 3Rs and waste management programs, contact:

Manager, Waste Reduction and Recovery Section
Waste Management Division, Region of Peel
10 Peel Centre Drive
Brampton, ON L6T 4B9
Tel. (416) 791-9400 Fax (416) 791-2398

3.3.5 *York Region*

Residential Blue Box

All nine area municipalities in York Region operate residential Blue Box recycling programs. They serve more than 140,000 households. Materials collected in the Blue Box programs include newspaper, glass, cans and PET plastic. The region is working to establish a central Blue Box processing facility to replace the two temporary facilities currently run by the towns of Markham and Richmond Hill.

In June 1990, Markham started collecting mixed plastics, old corrugated cardboard and Tetra-Pak drink boxes. Some of the area municipalities also offer a special collection or depot service for leaves, Christmas trees, white goods and tires.

Leaf and Yard Waste Composting

Area municipalities collect leaves, grass clippings and other wastes from gardens and yards and take them to a regional yard waste composting facility. It is run Miller Waste Systems and is located in Richmond Hill.

Backyard Composting

Each area municipality is responsible for distributing backyard composters. By the end of 1991, approximately 19,000 composters had been sold.

Household Hazardous Waste Program

Over the past few years, York region, in co-operation with its nine area municipalities, has held four successful Household Hazardous Waste Collection Days. The region ran a pilot project involving a mobile household hazardous waste depot in 1992.

Industrial and Commercial Waste Reduction

York Region does not have an IC&I waste reduction program. The regional council, however, requires private sector material recovery facilities to tell regional staff how much they have diverted as a condition of operation.

Material Bans and Tipping Fees

York Region has an agreement with Metro Toronto which states that the Keele Valley landfill site, which is owned and operated by Metro Toronto, must accept all of York Region's waste which is destined for disposal. In 1991, all of York's area municipalities except Georgina Township disposed of their municipally collected waste at the Keele Valley landfill. As noted before, Metro Toronto has banned old corrugated cardboard, tires, drywall, scrap metal, clean fill, concrete and rubble, wood waste and office paper from its landfill sites.

Estimated Diversion

In 1991, York region diverted 23,000 tonnes of recyclable material from landfill sites through its residential Blue Box program. More than 8,000 tonnes of compostable materials were taken to the region's leaf and yard waste facility in 1991.

For more information on York's 3Rs and waste management programs, contact:

Environmental Services Department, Regional Municipality of York
Box 116, 460 Oak Street
Newmarket, ON L3Y 4W3
Tel. (416) 830-6900 Fax (416) 830-6927

3.4 Provincial-Municipal and Inter-Municipal Initiatives

Encouraging co-operative efforts on the 3Rs between the province and municipalities in the GTA is an important goal for the Ontario government, as indicated in the provincial strategy document, *The Waste Crisis in the GTA*, released in June 1991. This sub-section documents some of the provincial-municipal and inter-municipal initiatives undertaken in 1991.

3.4.1 *Establishment of Provincial-Municipal Technical Working Group*

A technical working group consisting of municipal waste diversion staff from the GTA's five upper-tier municipalities and ministry staff was established in May 1991. The working group has met every month to help develop an initial framework for inter-regional planning and to help co-ordinate efforts between the province and the various municipalities. The group has discussed the following issues related to development of an inter-regional waste reduction plan for the GTA:

- Collection
- Processing
- At Source Reduction/Source Separation
- Markets
- Promotion/Education
- Public Sector vs Private Sector Investment
- Financing
- Other Issues

3.4.2 Provincial-Municipal GTA 3Rs Communications Committee

In the summer of 1991, a provincial-municipal 3Rs communications committee, consisting of 3Rs communications staff from the GTA's five upper-tier municipalities and ministry staff, was established. The committee met several times in 1991 to help develop ideas on provincial-municipal and inter-municipal 3Rs communications.

3.4.3 The Greater Toronto Area Waste Reduction Campaign

The GTA Waste Reduction Campaign started in December 1990 as a co-operative effort of the five upper-tier GTA municipalities. The multi-media, region-wide advertising campaign focused on the importance of the 3Rs and on the actions that can be taken to reduce Municipal Solid Waste. The print ads which appeared in major daily newspapers (*ie. The Globe and Mail, Toronto Star, Toronto Sun and Financial Post*) and many community papers distributed throughout the GTA are reproduced in Appendix B.

The campaign used television, radio, newspaper and transit advertising to promote the "how's and why's" of waste reduction. The integrated campaign tailored its messages to take advantage of each medium (*e.g.* reading time on transit allows for detailed information), while reinforcing the messages used in other media through common themes and images.

Metro Toronto received an unsolicited letter from Angus Reid Ltd., one of Canada's largest polling companies, reporting that results from the GTA campaign were showing up in other environmental polling they conducted in the fall of 1991. The company felt that the GTA campaign was highly effective, primarily because it told people what to do just when they were seeking this information.

The cost of mounting the campaign, which was developed by an outside communications firm, was to be shared proportionately between the five regions (50 per cent) and the province (50 per cent). However, for a number of reasons, campaign costs were shared between the province and Metro Toronto only.

4.0 NON-GOVERNMENT STAKEHOLDERS

There are many important stakeholders in waste management in the GTA. To develop a comprehensive and co-ordinated approach to waste reduction and diversion programs across the GTA, representatives from the five GTA upper-tier municipalities, industrial and commercial waste generators, health care and educational institutions, labour unions, and environmental and non-profit organizations must all be involved. This chapter examines the role of non-governmental stakeholders.

As a preliminary step to involving other stakeholders, the WRO held a series of meetings in October and November of 1991 with representatives of the associations to which major stakeholder groups belong. The purpose of the meetings was to inform a broad spectrum of organizations about the proposed 3Rs regulations (see sub-section 2.2.2) and about efforts to accelerate 3Rs activities in the GTA. At each meeting participants discussed the areas of greatest concern to their sector as well as how to accelerate 3Rs in the GTA. This provided an opportunity to learn about the concerns which were unique to individual stakeholders.

The sections below document some of the suggestions put forward by stakeholders from the IC&I, non-profit, environmental, and labour sectors, at these meetings.

4.1 The Industrial, Commercial and Institutional Sectors

More than 55 per cent of the solid waste generated in the GTA is produced by the IC&I sectors. Achieving the province's waste reduction goals will require significant efforts from these sectors to reduce waste at the source as well as to identify new opportunities to re-use materials and to develop the infrastructure to process and use recyclable material. To simplify the discussion below, the IC&I sectors have been divided into two categories: generators and processors. Some IC&I generators, however, also are involved in processing activities.

4.1.1 *The IC&I Sectors as Generators*

Waste generators from the IC&I sectors have a significant role to play in solid waste management because:

- Many IC&I organizations have developed and are implementing waste diversion plans. Moreover, the proposed 3Rs regulations will make this mandatory for some 2,100 designated IC&I establishments in the GTA (out of 5,300 in the province as a whole);

- Choices made by manufacturers about product design and production as well as operating processes have a direct bearing on the success of 3Rs programs;
- Industrial and commercial enterprises usually bear the cost of the waste management services which are not provided to them by the municipality.

Much of the current 3Rs activity in the IC&I sectors is taking place voluntarily, mostly because of the dramatic increase in tipping fees at GTA landfill sites over the past few years. The proposed provincial 3Rs regulations, outlined in *Initiatives Paper #1*, will mandate 3Rs workplans and source separation activities in most major IC&I sectors. As well, the waste audits required in the proposed 3Rs regulations should encourage generators to reduce waste at source and to identify reusable and recyclable materials.

Recyclable materials that are separated at source may be shipped directly to the end user without further processing. Processing facilities may be required for recyclable materials that require separation or upgrading prior to being used.

4.1.2 The IC&I Sectors as Processors

Waste haulers and processors providing services to IC&I sectors have an important role to play in reducing waste because:

- In 1990, they collected more than 1.4 million tonnes of IC&I waste in the GTA;
- They not only provide services to the IC&I sectors but to the residential sector, through a significant number of contracts with municipalities;
- They have begun to participate in a wide range of 3Rs activities, including the operating of material recovering facilities, composting facilities and other processing plants.

The Canadian Association of Recycling Industries (CARI) and the Ontario Waste Management Association (OWMA) are two of a number of associations whose member companies provide waste management and recycling services. These associations support the idea of increasing the amount of waste which is diverted from landfill sites.

The Scope of Current IC&I Collection and Processing Activity

To accelerate 3Rs in the GTA, more facilities and programs must be established to process materials which are being diverted from disposal by recycling and re-using programs. Dozens of public sector initiatives which promote the 3Rs have been developed and implemented in the GTA.

At the same time, there are hundreds, perhaps even thousands, of IC&I establishments in the GTA that have reduced waste at the source and through various 3Rs activities. A large number also are involved in waste exchanges and packaging re-use programs. Unfortunately reliable information about the extent of these IC&I programs is not available yet.

There are a wide range of well-established facilities and operations that process and utilize reusable/recyclable materials. These operations function without public subsidies and have been in place for some time. For example, used car dealers and antique shop owners could be described as IC&I establishments which divert materials for recycling and re-use. For the purposes of this report, these types of operations have been excluded.

In this report, the private sector companies which collect and process various materials, and which are listed in the *1991 Ontario Waste Exchange Directory* published by ORTECH International, have been used to indicate the scope of present IC&I activity in the GTA. This information is organized by material category and presented in Table 4.

4.1.3 Consultation with Industry Associations

In October 1991, the Waste Reduction Office organized a half-day seminar with industry and trade associations in the GTA. The organizations invited to participate included:

Building Owners and Managers Association	Greater Toronto Home Builder's Association
Canadian Appliance Manufacturers Association	Grocery Products Manufacturers Association
Canadian Chemical Producers Association	Hotel and Motel Association
Canadian Council of Grocery Distributors	International Council of Shopping Centres
Canadian Federation of Independent Business	Ontario Chamber of Commerce
Canadian Hardware and Housewares Manufacturers	Ontario Federation of Agriculture
Canadian Manufacturers' Association	Ontario Fruit and Vegetable Growers Association
Canadian and Ontario Restaurant Association	Ontario Hospital Association
Canadian Pulp and Paper Institute	Ontario Multi-Material Recycling Industries
Composting Council of Canada	Ontario Soft Drink Association
Council of Ontario Construction Association	Ontario Waste Management Association
Environment and Plastics Institute of Canada	Ontario Waste Exchange
	Packaging Association of Canada

The representatives of the organizations at the meeting urged the WRO to address needs related to:

Collection

- Developing better collection and processing infrastructure, especially for small and rural businesses, and encouraging more research money to be spent on the development of technology.

Table 4
GTA-Based Industrial and Commercial Operations Collecting and Processing
Recyclable and Reusable Materials in 1990/1991

<u>Material</u>	<u>Materials Collected, Accepted or Processed</u>	<u>No. of Firms</u>
Metal	ferrous and non-ferrous metals, including motor vehicles and parts, white goods, machinery, electrical cable, pop cans, plastic laminated aluminum foils, electric motors, and metal shelving	87
Plastics	PET, HDPE, Plastic Film and 19 Other Types of Plastic	75
Paper	corrugated cardboard, office paper, computer paper, ledger paper, newspaper, boxboard, and books	41
Wood	waste wood from construction and demolition, wood manufacturing, pallets, crating, brush and tree stumps, sawdust, and wood chips	29
Organics	food and organic waste, such as waste grease, bones, fat, edible oils, animal by-products, mixed food wastes, grains, manures, grain processing and milling by-products, as well as packaged food products and health care products	22
C&D Waste	Waste Asphalt	21
	Drywall and other C&D Wastes	15
Containers	Plastic and Steel Drums	18
	Glass	14
Clothing	used clothing, cuttings from manufacturers and other assorted textiles and fabrics	9
Batteries	Automotive and Industrial	4

Source: Ontario Waste Exchange (1991)

- Ensuring greater consistency in the types of materials collected and the level of service provided to the private sector.

Processing

- Promoting a hierarchy for the use of organic waste in the following order: Human food, animal food, energy production, and compost.
- Anticipating public resistance to the siting of facilities, such as centralized composting.

At-Source Reduction/Source Separation

- Helping companies so that they will know where to begin when undertaking waste audits and seeking assistance.
- Emphasizing re-use in waste audits and waste reduction workplans.
- Providing incentives for separating at the source, such as high tipping fees.
- Solving space problems, which are a real obstacle to recycling.

Promotion/Education

- Providing public education in a form that results in changes in the market place.
- Promoting the sharing of information among businesses.

Economic Effects/Financial Issues

- Developing tax breaks for green industries, investment programs and other mechanisms aimed at building an infrastructure.
- Acknowledging that as source separation activities become more complex and more expensive, there will be increasing concern about the time and costs involved.
- Ensuring that the high cost of constructing 3Rs facilities does not become a barrier to the success of 3Rs.
- Holding discussions which focus on product stewardship, competitiveness, user fees, and non-tariff barriers.

Public Sector vs Private Sector

- Defining the Ontario Government's role as being primarily to regulate and enforce.

- Ensuring that programs and by-laws are consistent from municipality to municipality, so that they do not make it difficult to run a business that crosses jurisdictions.

Markets

- Ensuring that governments in Canada develop procurement policies that stimulate markets and close waste generation loops.

4.2 Organized Labor

Organized labor is an important stakeholder in solid waste management because:

- Union members in IC&I workplaces often are responsible for implementing waste reduction activities;
- Unions, such as the Canadian Union of Public Employees (CUPE), represent more than 2,500 municipal and private waste management workers in Ontario;
- CUPE and other organized labor groups have made positive contributions to policy debates on solid waste management and 3Rs activities in Ontario for more than 10 years;
- Changes to municipal waste management systems may have a significant effect on workers.

4.2.1 Consultation with Organized Labor

In October 1991, the Waste Reduction Office held a meeting with representatives of various labor unions in the GTA. The following suggestions and comments were made on the topics identified for consideration by the WRO:

Collection

- The public sector should be involved in the waste hauling industry, to ensure competitive pricing.
- Public recycling infrastructure must be developed.
- Concern was expressed that private companies were collecting profitable items for recycling, leaving the public sector with less-profitable items.

Processing

- Opportunities for joint venture government/private sector investment should be explored.

At Source Reduction/Source Separation

- Workers should be involved in workplace environment committees to ensure that workers and management have ownership and input.
- Training on 3Rs should be a priority.
- Workers must be free to speak out on waste-related issues.

Promotion/Education

- Educating workers changes the workplace.

Public Sector vs Private Sector

- Until new waste management powers are provided to municipalities through reforms to the *Municipal Act*, it may be difficult for the public sector to plan for future needs.
- Clarification is needed on how private/corporate plans mesh with the public sector's needs.
- Public money should be used to facilitate the greening of industry.
- Public money should be spent on education to promote waste reduction, and on enforcement of regulations.

Economic Changes/System Financing Issues

- There must be accountability, regardless of who controls the flow of recyclable materials and residual wastes which go to disposal sites and who gets the revenues from tipping fees. The underlying economic forces which shape the waste management industry must be understood and the knowledge used to protect and advance the financial interests of taxpayers.
- Planning and system development must encompass the entire waste stream, including the residential and IC&I waste streams. Planning must deal with every step of the waste cycle, from initial production and packaging to use, re-use, recycling or disposal.

- Planning must be broadly-based geographically so that the full scope of the problems and their solutions may be properly recognized.
- Full public consultation and participation is required in all aspects and stages of policy development and operations.

Other Comments

- Occupational health and safety issues need to be addressed for all collection staff in the GTA.

4.3 Environmental Groups

In the spring of 1991, the WRO met with representatives of major environmental non-governmental organizations (ENGOS) in the province to talk about mechanisms for consultation between the WRO and the groups. After a lengthy discussion, the representatives from the organizations decided that the Ontario Environmental Network would co-ordinate the organizations' comments on the WRO's initiatives and the development of accelerated 3Rs programs in the GTA.

4.3.1 *Waste Caucus of the Ontario Environmental Network (OEN)*

The Waste Caucus of the Ontario Environmental Network was established in June of 1991 to provide a focus for environmental groups interested in waste issues. Over fifty groups and organizations have been involved to date. They include Citizens for a Safe Environment, Recycling Council of Ontario, Citizens Network on Waste Management and the Toronto Environmental Alliance.

It is intended that the Waste Caucus will act as a larger forum for discussing issues and will be responsible for distributing information to interested groups and organizing consultation opportunities as well as holding meetings and conferences to share information and co-ordinating joint campaigns. Specific issues are addressed through nine working groups within the caucus. They are looking at regulations, master planning, recycling, composting, IC&I waste, economics, education and outreach.

The caucus has agreed to participate in multi-stakeholder discussions on waste reduction planning in the GTA.

4.3.2 Consultation with Environmental Organizations

On October 18, 1991, the Waste Reduction Office convened a meeting of environmental organizations concerned about waste reduction in the GTA. They discussed the best mechanism for ensuring ongoing involvement, as well as how they might be involved in inter-regional planning efforts.

The following is a summary of some of their remarks:

Collection and Processing

- Concern was expressed that the amount of money which OMMRI has contributed to the Blue Box Program to date does not come anywhere near the cost of running the program.
- There is a need to move up the hierarchy towards reduction. This means it may not be appropriate to invest heavily in recycling facilities.
- Priority must be placed on processing materials as close to where they are generated as possible.

At Source Reduction/Source Separation

- More emphasis should be placed on encouraging community re-use centres.
- Creative new approaches need to be considered including those that address product design issues.
- Source reduction and source separation should be emphasized with a focus on refillable, rather than recyclable, containers.

Markets

- Opinions were divided as to whether the public or the private sector should be responsible for marketing used and recycled materials.

Promotion/Education

- Messages about waste reduction in advertising and promotion campaigns need to be consistent and co-ordinated across the GTA.

Public Sector vs Private Sector

- A variety of opinions were expressed regarding public vs private ownership of 3Rs facilities and systems.

Economic Changes/System Financing Issues

- Most participants stated that 3Rs and waste management costs should be paid for by waste generators, producers and consumers, so that market mechanisms can reduce waste and promote product stewardship.
- The inter-regional planning process must balance local community needs such as the need for local accountability.

4.4 Non-Profit/Charitable Organizations

At least eleven GTA social service organizations promote the diversion of edible food from disposal and the re-use and repair of clothing, white goods, books, furniture, and machinery. Although most organizations have social assistance and fund-raising as their major focus, their waste reduction activities are significant. Community-based organizations such as St. Vincent de Paul, the Salvation Army, Goodwill Industries, Second Harvest and the Canadian Foundation for World Development are leaders in this area.

The Salvation Army and Goodwill Industries provide drop-off containers and trailers for reusable clothing, appliances and furniture. The St. Vincent de Paul Society organizes clothing and material collections through individual parishes of the Roman Catholic Church. All three organizations sell reusable materials in their stores as part of their fund-raising activities. Goodwill Industries repairs furniture and appliances as part of its vocational training programs.

Second Harvest collects edible food from restaurants and hotels and delivers it to institutions and shelters that provide meals for people in need. The program has been popular with the generators of excess food, as they would rather see it used than thrown away. Food which is not edible either is composted or given to farmers for animal feed.

The Canadian Foundation for World Development is a volunteer organization that sends used equipment and supplies such as eye-glasses to third world countries for re-use.

Wastewise was founded in early 1991 as a community-based resource centre and diversion facility. Wastewise provides resource management opportunities that are distinctly different from traditional waste management methods. It is located in Halton Hills and staffed by paid employees and volunteers.

Wastewise's goal is to educate all waste generators about waste reduction and to divert reusable and recyclable materials from disposal. In the first 15 months of operation, Wastewise assisted companies and businesses in locating markets for diverted materials, fielded dozens of requests for information from businesses, environmental groups, organizations and individuals, provided recycling and re-use services to more than 25 companies and produced a guide on how to start a community resource centre.

Thanks to their work, Wastewise staff and participating businesses diverted more than 109 tonnes of material (the equivalent of four days of Halton Hill's solid waste) from disposal. The diverted material included 59 tonnes of paper, 40 tonnes of reusable appliances, tools, furniture and equipment, nine tonnes of used clothing and shoes, and one tonne of plastic.

Municipalities are recognizing the important role which non-profit and charitable organizations play in diverting materials from the general waste stream. Some municipalities provide free waste disposal for these organizations, while others provide them with equipment at little or no cost. In other communities, municipal staff direct individuals who need large, bulky materials picked up to deliver to non-profit agencies. Government support for these non-profit organizations has been somewhat passive to date. But the ongoing waste disposal crisis is forcing municipalities to develop waste reduction strategies which involve such groups.

4.4.1 Consultation with Charitable Organizations

On December 6, 1991, a meeting with charitable organizations in the GTA was convened to discuss the best mechanism for ensuring their ongoing involvement in inter-regional planning efforts.

The following is a summary of some of their remarks:

Collection and Processing

- Non-profit organizations have difficulty collecting small quantities of material and usually cannot afford to pay a collection fee.

- There is a need for a stated hierarchy for secondary materials, especially food. Food fit for human consumption should be sent to food banks or social service agencies, rather than being used for animal feed.

At Source Reduction/Source Separation

- Procurement that promotes re-use and reduction must be emphasized.
- Source separation programs should be recognized as providing opportunities for creating jobs.

Market Development

- New ways must be sought to link charitable organizations with the suppliers of surplus goods.
- Methods of preventing waste while still ensuring public safety need to be revisited (eg. use of products/medicines that may still good even though they are past the "use before" or "best before" date on their labels).

Promotion/Education

- Industry needs to know what things may be donated to charitable organizations and where to take the materials and goods.
- The benefits of re-using materials must be promoted to donors and purchasers.

Economic/Monetary Issues

- Governments should establish various tax credits which will make giving material away as economical as selling it.
- The diversion efforts of charitable organizations should be recognized and encouraged by governments and other sectors.
- Governments must give priority to funding projects that move diversion activities up the hierarchy (*ie.* re-use over recycling).
- Small organizations need resources to promote their work and to make sure that they are not duplicating the work of other agencies.
- High tipping fees provide an incentive for re-use.

Other Concerns

- "Good Faith Donation" legislation (legislation which reduces the liability of donors) is needed to protect the donors of goods.
- Differences in anti-scavenging by-laws in GTA area municipalities create confusion about what can be salvaged at curbside for re-use and recycling. The province should encourage municipalities to adopt model by-laws on scavenging.

4.5 Government-Funded Institutions

Government-funded institutions are reducing significantly their waste generation rates. The activities of two institutional sectors are described below.

4.5.1 Education

The school system, from kindergarten to university, has a responsibility to educate the next generation to be more environmentally responsible. The sector also has a role to play in reducing the amount of waste generated within its own precincts. This discussion identifies some of its waste reduction initiatives.

Discussions with representatives of the sector indicate that numerous 3Rs initiatives are being pursued in Ontario schools including the following:

- Recycling co-ordinators have been hired by more than 30 school boards and universities to develop and implement 3Rs activities and source separation programs. More than 2,600 Ontario elementary and secondary schools are participating in source separation programs for metal, plastics, glass containers and fine paper;
- Procurement policies have been developed that take 3Rs issues into consideration. Specifically, the Ontario University Purchasing Management Association is working to encourage on-site recycling. Further, the association gives preference to tenders that feature 3Rs-oriented products;
- Student-initiated recycling programs have been set up in a number of universities;
- The Ontario Public School Boards' Association has prepared a *Green Guide for Developing and Implementing Environmental Policy* for use by its ninety member school boards.
- A summary document on environmental programs across Canada has been developed by the Canadian Education Association. This group also facilitates the sharing of information between sector members.

4.5.2 Health Care

Although relatively new to the municipal waste management scene, the health sector is making great progress in finding better ways to deal with its unique problems, as illustrated below.

Health Care Environmental Network

The Health Care Environmental Network (HCEN) was established in April of 1990 by staff members at the Sunnybrook Medical Centre to discuss waste management issues in the health care sector. Intended as a resource for Toronto area hospitals, the organization soon expanded across Ontario and now includes 187 individuals, hospitals, professional associations and suppliers. As of December 1991, the Health Care Environmental Network had nine sub-committees. Although most of the work of these sub-committees focuses on waste reduction, they also examine a variety of other related issues.

Some examples of the Health Care Environmental Network's activities include:

- Promoting staff involvement in environmental initiatives;
- Maintaining a data base of initiatives that ensure that the disposal of hazardous waste complies with appropriate environmental health and safety regulations;
- Providing referral assistance;
- Updating members on related matters and proposed legislation;
- Evaluating the environmental aspects of the products purchased by hospitals to help develop more environmentally friendly procurement policies;
- Providing information on waste audits conducted within hospitals;
- Setting up a materials and waste exchange;
- Helping suppliers implement environmental codes of practice.

The Health Care Environmental Network strives to make sure that the environment is considered in everyday decisions made in the health care sector. The organization recognizes that initiatives in the health care field are complicated by safety concerns and that there is a need to strike a balance between patient care and safety and the effect which individual actions have on the environment. The Health Care Environmental Network has been successful in its holistic approach to environmental action.

4.6 Summary of Views of Non-Governmental Stakeholders

The views of non-governmental stakeholders on how best to develop an accelerated 3Rs program in the GTA, as expressed during the fall 1991 meetings, vary considerably. They are summarized in Table 5.

The need to develop a GTA waste reduction strategy was recognized by most of the stakeholder representatives who attended the meetings. Most also supported the concept of emphasizing reducing waste at the source and the principle of separating wastes at the source for recycling, re-using and composting.

There appears to be a degree of consensus among all stakeholders on the need to shift the focus of waste management to those solutions that encourage personal responsibility for environmental problems and appropriate changes in life style and away from engineered solutions. Moreover, many stakeholder representatives said that if Ontario is to have any chance of reaching its target of diverting at least 50 per cent of its waste from landfill sites by the year 2000, the province must begin encouraging people to change their habits now.

Many institutions and companies in the IC&I sectors said that the Ontario Government and GTA municipalities should facilitate the development of better 3Rs collection and processing systems.

Labor representatives expressed the view that more money should be invested in building publicly-controlled infrastructure and facilities and in educating workers about the 3Rs. The representatives also said that waste reduction planning must encompass residential and IC&I wastes and should be based on a regional and/or inter-regional model.

Environmental non-government organization and charitable organization representatives recommended that provincial and municipal governments help to establish the infrastructure needed to encourage waste reduction and re-use. These representatives also expressed the desire to see 3Rs services and infrastructure standardized across the GTA.

**Table 5 Summary of Non-government Stakeholder Views
on Various GTA Waste Issues Expressed in Fall 1991**

Issue	IC&I	LABOUR	ENGOS	CHARITABLE ORGS
Collection	<ul style="list-style-type: none"> improved infrastructure more R&D on technology more consistency in materials collected & service 	<ul style="list-style-type: none"> public competition public recycling infrastructure equal opportunity to collect profitable items 	<ul style="list-style-type: none"> local responsibility & control 	<ul style="list-style-type: none"> need a materials use hierarchy (particularly for food)
Processing	<ul style="list-style-type: none"> improved infrastructure (for variety of materials) 	<ul style="list-style-type: none"> plants should be public/private joint ventures 	<ul style="list-style-type: none"> plants should be as close to point of generation as possible 	<ul style="list-style-type: none"> government should anticipate public resistance to siting
Separation	<ul style="list-style-type: none"> assistance to companies for waste audits provide incentives (ie. high tipping fees) address space problems 	<ul style="list-style-type: none"> worker participation training as a priority 	<ul style="list-style-type: none"> emphasize at-source reduction & separation 	<ul style="list-style-type: none"> procurement to promote 3Rs opportunity for job creation
Promotion/Education	<ul style="list-style-type: none"> public education to change marketplace information-sharing among businesses 	<ul style="list-style-type: none"> educate workers 	<ul style="list-style-type: none"> need more consistency across GTA encourage community re-use centres 	<ul style="list-style-type: none"> inform industry of what can be donated & where educate donors & purchasers re: benefits of reuse
Economics/Finance	<ul style="list-style-type: none"> tax 'breaks' for building infrastructure acknowledge time & cost of source separation offset cost of constructing 3Rs facilities future discussions: product stewardship, competition, user fees, non-tariff barriers 	<ul style="list-style-type: none"> accountability planning to encompass all streams and entire waste cycle broad geographic planning public participation 	<ul style="list-style-type: none"> management costs should be internalized by generators need for local accountability encourage reduction rather than large investment in recycling facilities 	<ul style="list-style-type: none"> tax credits for donors public recognition diversion projects to receive funding priority from government avoid duplication high tipping fees to encourage reuse

(Table 5 - CONTINUED)

<i>Issue</i>	<i>IC&/</i>	<i>LABOUR</i>	<i>ENGOS</i>	<i>CHARITABLE ORGS</i>
<i>Public v. Private</i>	<ul style="list-style-type: none"> ● regulation and enforcement province's primary responsibility ● consistent by-laws & programs across municipal boundaries 	<ul style="list-style-type: none"> ● planning difficult without flow control legislation ● clarify how private/corporate plans meet public sector's needs ● public funding for green industry initiatives, education & enforcement 	<ul style="list-style-type: none"> ● variety of opinions ● concern that entrenched institutions (eg. OMMRI) are becoming obstacles to product stewardship 	
<i>Markets</i>	<ul style="list-style-type: none"> ● governments must develop procurement policies to stimulate markets & 'close loops' 		<ul style="list-style-type: none"> ● divided opinion on responsibility ● creative approaches needed--including product design 	<ul style="list-style-type: none"> ● how to link with suppliers ● fit for human consumption
<i>Other</i>		<ul style="list-style-type: none"> ● must ensure health & safety of collection staff 		<ul style="list-style-type: none"> ● need "Good Faith Donation" legislation ● consistent scavenging by-laws

5.0 CONCLUSION

This report documents the recent history of waste management planning in the GTA and provides a snapshot of the range of 3Rs activities that were under way in the GTA as of December 1991 and a review of provincial programs that existed as of August 31, 1992. These 3Rs activities will be crucial to achieving the provincial waste diversion targets of 25 per cent by 1992 and at least 50 per cent by 2000. Moreover, 3Rs activities in the GTA will provide a preliminary foundation for the development of green industries and 3Rs infrastructure which will service municipalities and IC&I establishments throughout the province.

To facilitate improved communication between various stakeholders, it is intended that similar status reports will be prepared by the WRO periodically. Future reports will limit descriptions of regulations, legislation and other initiatives to an update on changes and will focus instead on examining in more detail technical issues and implementation.

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APPENDIX A

CHRONOLOGY AND REFERENCES TO PROVINCIAL 3Rs INITIATIVES TO THE END OF AUGUST 1992

October 15, 1990: Provincial Waste Reduction Targets

The Minister of the Environment affirmed the government's commitment to provincial targets of at least 25 per cent waste reduction in 1992 and at least 50 per cent by the year 2000.

(Reference: Speech at the annual conference of the Recycling Council of Ontario, Windsor.)

November 21, 1990: Conserver Society Action Plan

The Minister announced that the thrust of the province's environmental policy is to move Ontario from a consumer society to a conserver society, and that emphasis will be placed increasingly on the waste reduction and re-use of materials at source, rather than on recycling and waste disposal.

In recognition of the GTA's waste crisis, the Minister announced the creation of a new public sector authority to establish long-term disposal capacity for residual wastes remaining after all efforts to divert waste materials have been made. (On May 10, 1991 the authority was incorporated as the Interim Waste Authority Limited.) In addition, the exemptions from the *Environmental Assessment Act*, which had been granted to proposed interim sites in Whitevale and Brampton, were suspended. The Minister also stated that all new landfill sites will be subject to full public hearings and approvals under the *Environmental Assessment Act*.

(Reference: Statement to the Legislature)

February 21, 1991: Ontario's Waste Reduction Action Plan

The Minister announced a four-part plan to accelerate waste reduction efforts in the province:

1. Implementation of strong regulatory measures to reduce, at source, the flow of valuable resources now going to disposal.
2. Development of the necessary financial and technical systems to direct these materials from landfills and into productive use and re-use.

3. Establishment of healthy markets for materials recovered through 3Rs programs.
4. Establishment of public education programs to provide all members of Ontario society with the information they need to make responsible 3Rs choices to reduce the amount of waste going to disposal.

Within these four areas, a number of specific initiatives also were announced, including the creation of a provincial Waste Reduction Office. Its mandate is to coordinate policy, develop regulations, and consult with all groups affected by the Ontario Waste Reduction Action Plan.

(Reference: Speech at a meeting of Eastern Ontario Mayors, Wardens, and Reeves, Belleville)

April 2, 1991: Local Responsibility for Waste

The Minister stated that, in keeping with conserver society values, all communities must accept responsibility for the waste they generate. Therefore, facilities for the disposal of residual wastes should be located as close as possible to the source of generation. As Minister responsible for the GTA, she announced that the search for long-term waste disposal sites for the GTA will not be outside its boundaries.

(Reference: Statement to the Legislature)

April 11, 1991: Ban on Incineration

The Minister announced a ban of all future municipal solid waste (MSW) incinerators in Ontario, and a review of MSW incinerators now in operation. She stated that the incineration of waste was inconsistent with the 3Rs, does not promote waste reduction, and poses many environmental and health-related problems.

(Reference: News release)

June 17, 1991: Road to a Conserver Society

The Minister explained her vision of a conserver society noting that "waste reduction is the key to success in changing a consumer society into one that conserves". She stated that the following principles were essential to making that change: Conservation, durability, true cost accounting, accountability, product stewardship, self-interest and social involvement.

(Reference: Speech to the annual Ontario Waste Management Conference, later re-published as a booklet)

June 27, 1991: Provincial Strategy for the GTA Waste Crisis

The Minister announced a strategy that included initiatives to accelerate 3Rs activities in the GTA, find three new long-term landfill sites for residual wastes, and close the "disposal gap" before the new sites are in operation (by extending the use of the Britannia Road and Keele Valley landfills and building one or more transfer stations in Durham Region). The strategy also promises new legislation regarding the activities of the Interim Waste Authority and implementation of the disposal gap strategy.

(Reference: Statement to the Legislature and release of a paper called *The Waste Crisis in the Greater Toronto Area: A Provincial Strategy for Action*)

During the summer, the government began to implement the GTA waste strategy:

- Through the Minister's Reports under Section 29 of the *Environmental Protection Act*, the Minister directed Metropolitan Toronto and Peel Region to extend the life of the Keele Valley and Britannia Road landfill sites respectively. Durham Region was directed to build one or more transfer stations.
- The Interim Waste Authority Ltd. undertook a public consultation program on its proposed draft criteria for and approach to identifying the three long-term landfill sites to be constructed in the GTA.
- The Waste Reduction Office commenced working with the five GTA upper-tier municipalities and a number of other stakeholder groups, to coordinate waste reduction initiatives in the GTA.

October 9, 1991: Regulatory Measures to Achieve Ontario's Waste Reduction Targets

The Minister announced draft regulations that will make waste reduction mandatory for selected Ontario industries, businesses, institutions, and municipalities. The proposed regulations will require certain industrial, commercial, and institutional sectors to recycle materials, to conduct annual waste audits, and to prepare waste reduction plans.

The proposed regulatory measures are described in *Initiatives Paper #1*, released on October 9, 1991.

(Reference: Speech to the annual conference of the Recycling Council of Ontario releasing *Initiatives Paper #1: Regulatory Measures to Achieve Ontario's Waste Reduction Targets*)

October 24, 1991: Environment Minister Introduces Bill 143 -- The *Waste Management Act* in the Ontario Legislature

On October 24, 1991, Environment Minister Grier introduced Bill 143 -- The *Waste Management Act* in the Ontario Legislature, and provided an important indication of the Ontario government's commitment to promoting the 3Rs. While reaffirming its responsibility to ensure safe disposal of solid waste, the legislation also provides for new approaches geared to shifting emphasis to avoiding disposal altogether.

After public hearings, the legislation was subsequently proclaimed in April 1992 as the *Waste Management Act, 1992* (WMA).

The WMA is divided into four parts. Parts I to III of the WMA establish the Interim Waste Authority as a Crown corporation, clarify the scope of the IWA's landfill site search process and provide certain powers to the Minister related to addressing the landfill space problems in the GTA. Part IV of the WMA contains the fundamental provisions which will allow the province to begin implementing the regulatory measures outlined in *Initiatives Paper #1*.

The new regulation-making powers will enable the province to require major packaging users to prepare audits and workplans, and to require larger IC&I establishments to undertake waste audits and prepare waste reduction workplans based on the principle of source separation of recyclables and reuseables from residual wastes for disposal.

It also provides the Ontario government with explicit authority to study and fund 3Rs activities and additional regulatory powers to control the production of disposable products which are destined for immediate disposal. In addition, the WMA significantly expands the power of the provincial government to impose deposits on products and packages.

March 31, 1992: Reforming Municipal Waste Systems Planning and Municipal Legal Powers on Waste Management and the 3Rs

On March 31, 1992, the Minister of the Environment and the Minister of Municipal Affairs released two discussion papers. The documents are outlined below.

WRO Initiatives Paper #2: Waste Management Planning in Ontario

The Waste Management Master Plan (WMMP) program was established in 1982 to encourage comprehensive waste management planning in municipalities. The intent of the program was to prevent the development of critical landfill capacity shortages and to ensure proper planning in accordance with the EAA. Many problems with the program have been identified over the

years. Generally, these relate to siting landfill sites, EA process requirements, and ineffective delivery of the program.

In May 1991, preliminary discussions began with stakeholders on changes to the WMMP program. Subsequently, a revised waste management planning process was developed by the WRO. The revised process is outlined in *Initiatives Paper #2* which, together with the MMA paper on municipal waste management powers, was released in March of 1992. A 90-day public consultation period was undertaken in May and June 1992 with Ministry staff attending eleven formal consultation meetings across the province.

Guidance documents explaining the revised planning process are being prepared. These guidance documents are expected to be released early in 1993.

Ministry of Municipal Affairs (MMA) Discussion Paper -- Municipal Waste Management Powers in Ontario (also known as Initiatives Paper #3)

Municipalities lack sufficient legal powers and authority to meet the changing waste management functions they are expected to fulfil. The impetus for change comes from various sources. Several municipalities, as well as the Association of Municipalities of Ontario, have requested additional municipal waste management powers, because the inadequacy, inconsistency and fragmentation of existing municipal powers impedes municipal efforts to provide modern waste management services geared to waste diversion.

The discussion paper examines what powers municipalities will need if they are to implement waste management strategies that effectively meet current and future challenges. It describes the framework of municipal waste management in Ontario, develops principles for statutory municipal waste management powers and offers proposals for new statutory powers.

June 1, 1992: Progress on Measuring Diversion

On June 1, 1992, the Minister of the Environment released *WRO Initiatives Paper #4: Measuring Waste Diversion Activities in Ontario*.

One of the challenges facing the Ministry of the Environment is to develop consistent standards for measuring waste diversion activities in Ontario. The lack of standards has caused confusion in discussions about diversion between municipal officials, industries and provincial regulators. Some municipalities report weighed wastes, while others develop estimates based on the numbers of truckloads. Still others rely on consultants' reports. *Initiatives Paper #4*, released on June 1, 1992, is intended to clarify the provincial position on the standards which should be applied in classifying and measuring waste diversion and disposal in Ontario.

APPENDIX B

PRINT ADVERTISEMENTS FOR THE GTA WASTE REDUCTION CAMPAIGN FALL 1991

What more will you do...

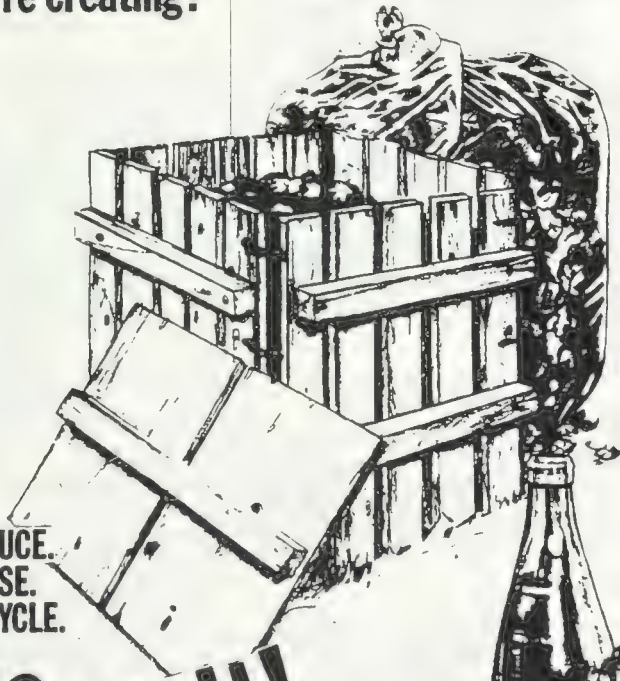
to help reduce all this garbage we're creating?

Landfill capacity is almost exhausted. And the Greater Toronto Area is near to choking on its own garbage. We're committed to waste reduction of 25% by 1992.

The Blue Box is a start. A good start. And other initiatives are under way. But now even greater effort is needed from every one of us. So ask yourself—what more will you do? It's worth it! Because we're only borrowing this land from future generations.

Get Into Compost!

Composting turns your kitchen and yard waste into dark, nutrient-rich soil conditioner for the garden. And composting is one of the fastest ways you can make a real dent in the garbage you put out. Call your municipal offices for more information.



REDUCE.
REUSE.
RECYCLE.

It's worth it!



Don't Throw It Out—Reuse It!

Like those empty jars, plastic tubs—you can find dozens of re-uses for 'em around the home. Let's use our imagination before throwing anything away!

BYOB To The Supermarket!

That's Bring Your Own Bag—could be a string or canvas shopping bag, even reusing *their* plastic bags over again.

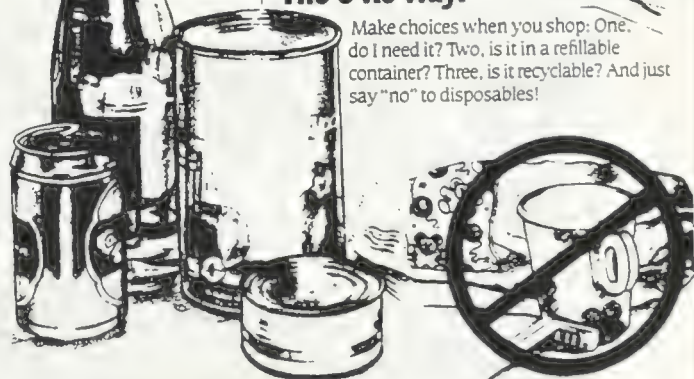
Fight Excess Packaging!

Blister packs, plastic-wrapped veggies, triple-wrapped cookies—thumbs down! Let the stores and manufacturers know how you feel about their instant garbage.



Shop The 3 Rs Way!

Make choices when you shop: One, do I need it? Two, is it in a refillable container? Three, is it recyclable? And just say "no" to disposables!



THE GREATER TORONTO AREA WASTE REDUCTION CAMPAIGN
METROPOLITAN TORONTO, THE REGIONS OF DURHAM, HALTON, PEEL AND YORK, AND THE PROVINCE OF ONTARIO.

I'm dreaming of a Green Christmas!

What better gift can we give than a clean world? And what better time to start than now, in the gift-giving season? Here's a bunch of ideas for making this a Green Christmas. Ideas to reduce waste in the Greater Toronto Area. Ideas that can save you money now, pay off in many ways, even lower costs. Something can be done. Something must be done. And it's worth it! Because we're only borrowing this land from future generations.



Imagination—it's a wrap!

Why watch all that expensive gift wrap get the rip-off when your own imagination can create all kinds of colourful, waste-reducing wraps!

How about saving the colour comics for a few weekends—kids can read as they unwrap. Use scraps of fabric (non-seasonal, so they can be reused). Have the kids draw their own wrap on newsprint; use up old ends of wallpaper; put surprise gifts into unusual packages like an egg carton or a paper towel roll; just top off with a bow and a card! It's up to you—and your imagination!

REDUCE.
REUSE.
RECYCLE.

It's worth it!

Listen to your radio every day for The 2-Minute Ecologist, Marjorie Lamb, and a whole lot more Green Christmas ideas.



Recycle your real trees—reuse the rest!

If you're the real tree type, remember, you can recycle it in the new year—the needles make a good mulch. And don't forget to keep an eye open for the special Christmas tree curbside collection announcement for your community.

Of course, nobody's found a way to recycle artificial trees.

So treat yours with lots of TLC and it will reward you with seasonal service year after year.

Cheers! It's in the bag!

Or, if you like, in the sleeve. Whichever, if you're planning on giving a little seasonal cheer this year, pop it into one of those bright reusable bags (could be a hint to return the favour!). Or use a stretchy knitted sleeve with a drawstring top—it'll fit, whether your gift is short and squat or tall and slim. Of course, a bright, beautiful bow round the neck is the simplest!

How about a gift in a gift?

Who needs wasteful store boxes?

A warm, woolly winter hat can be wrapped up in a colourful matching silk scarf. You can put home-made cookies in a jolly giant cookie jar. A pair of gloves, with jewelry slipped in the fingers?

A dress pattern hidden inside a dress length. Or a set of gardening tools inside a composter—now there's a waste reduction idea! Best of all—no gift wrap to throw out!



A gift of the green (and we don't mean money!)

A little thought—and you can find a gift that'll actually help with waste reduction. For a young couple: a complete set of reusable food storage containers. For new parents: enroll them in a diaper service for as many weeks as you like (they may never get hooked on disposables!)

Or a string shopping bag as a stocking stuffer: personalized coffee mugs for fellow workers (goodbye, foam cups); an acre of rain forest: anything that doesn't pollute, overuse energy, or come wrapped in 17 layers of plastic and cardboard!

THE GREATER TORONTO AREA WASTE REDUCTION CAMPAIGN
METROPOLITAN TORONTO AND THE REGIONS OF DURHAM, HALTON, PEEL AND YORK

Are you still shopping for instant garbage?

The biggest problem with packaging is that there's just too much of it! And packaging makes up about a third of all our municipal garbage – so if we can reduce the amount of packaging we take home from the store, we'll help make a big difference in the Greater Toronto Area garbage problem. It's worth it. Because we're only borrowing this land from future generations.



REDUCE.
REUSE.
RECYCLE.

It's worth it!

Listen to your radio for Pollution Probe's Janine Ferretti with tips on reducing packaging and saving money.

Thumbs down on throwaways!

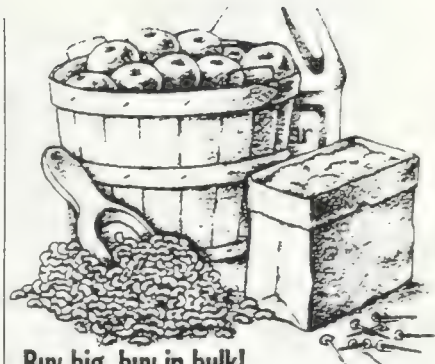
Why buy disposable diapers, razors, single-use cameras, plastic cups, plates and cutlery...when the permanent kind are so much better? Think about using rechargeable batteries. And stock up on cloth towels and napkins, rather than use paper.

The 3Rs way of shopping.

First – Reduce...do you really need it? And if you do, is there an alternative you can buy in bulk that's unpackaged?

Next – Reuse...is the package returnable? Or can you reuse it around the home – like glass jars or plastic tubs and spray bottles?

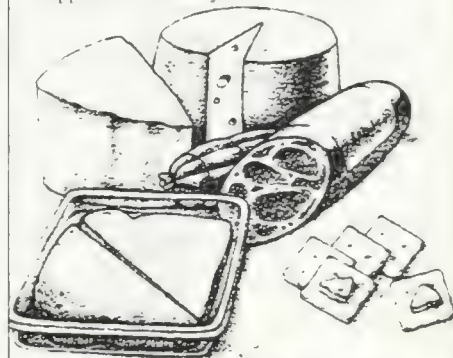
Finally – Recycle...is the package made from recycled materials? Can it go in the Blue Box (don't just accept the manufacturer's claims on this one!)?



Buy big, buy in bulk!

Get the largest size you can of things you use a lot, like detergent, sugar, vinegar, ketchup, rather than buying smaller sizes more often (saves money too!).

Look for unpackaged bulk items whenever possible – loose nails or screws instead of those blister packs; bulk cookies rather than the plastic-wrapped, boxed variety.



Who needs "single servings" anyway?

Individually wrapped cheese slices (slice your own off the wedge); high-tech "microwaveable" meals (often there's more package than product); some crackers and slices of meat or cheese in a plastic-wrapped plastic tray in a cardboard sleeve (why not make up your own "single snacks" and carry them in a reusable container?).

Check your Packaging Popularity Parade!

Bulk foods, unwrapped fruits and veggies: YEA!
Returnable glass pop and beer bottles: YEA!
Foil-lined juice boxes: BOO!
Aerosol cans: BOO!
Recyclable cans and bottles: YEA!
Coated paper boxes and cartons: BOO!
Boxes with cellophane windows: BOO!
Reusable tins and glass jars: YEA!
About two hundred pounds of moulded foam surrounding a portable tape player: HISS. BOO!

Use your consumer clout!

Let store owners, managers and manufacturers know how you feel about over-packaging. When the public speaks, they'll take notice!



THE GREATER TORONTO AREA WASTE REDUCTION CAMPAIGN
METROPOLITAN TORONTO AND THE PROVINCE OF ONTARIO.



**Don't waste
the
summer...
keep
reducing
that garbage!**



Now that the good weather's here it's easy to forget about the Greater Toronto Area garbage problem. But let's not let up! Because the garbage won't. Summer brings its own opportunities to reduce, reuse, recycle. And it's worth it! Because we're only borrowing this land from future generations.

No raking means healthier lawn-making!

Leave those grass clippings where they fall - they'll help fertilize, give you a lusher-looking lawn. Always mow when it's dry... keep clippings one inch or less in length. Excess lawn clippings can go straight in the composter - *never* out in the garbage!

Shoppers, why choose what you can't reuse (or reduce, or recycle!)

Before you fill that cart, always ask yourself:

First, do I really need it?
(that's Reduce!)

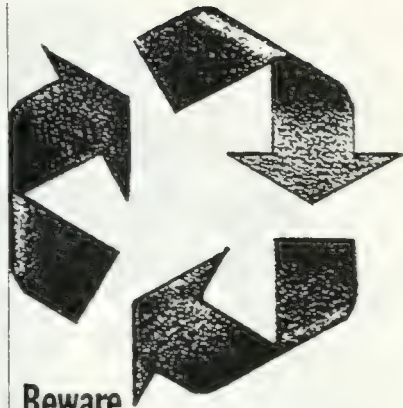
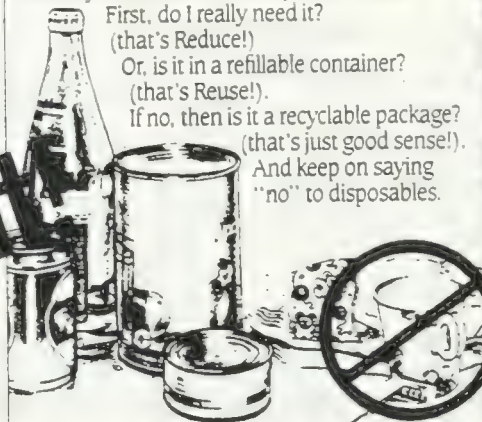
Or, is it in a refillable container?
(that's Reuse!).

If no, then is it a recyclable package?
(that's just good sense!).

And keep on saying
"no" to disposables.

**REDUCE.
REUSE.
RECYCLE.**

**It's
worth it!**



Beware the Blue Box impostors!

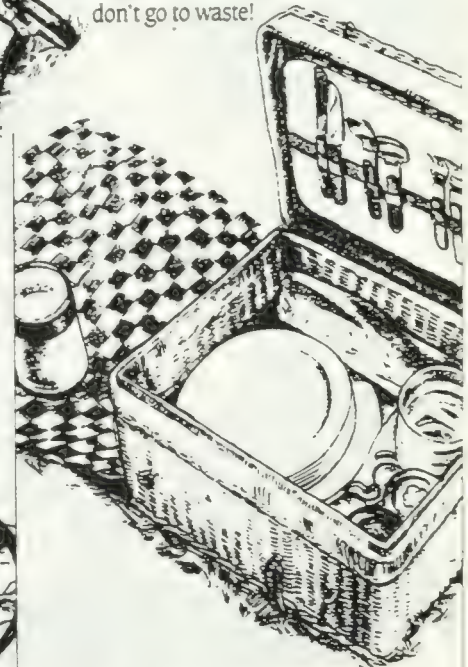
The well-known recycling "loop" logo is showing up on lots of packaging these days... but the trouble is, not all packages marked that way can be accepted for recycling. They're either not recyclable or there's just no market for them. So follow your municipality's Blue Box rules - it'll help cut time and costs, and make the program work better for us all!

And let the manufacturers know how you feel... urge them to do more to reduce unnecessary packaging!

Pack a garbage-free picnic!

Please, no throwaways - take along reusable plastic plates, cups and cutlery. Pack sandwiches in stayfresh boxes, bring drinks in returnable, refillable bottles.

Cloth napkins add an elegant touch, and don't go to waste!



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**What do you
do if it
corrodes,
poisons,
burns you, or
goes boom?**

Did you know that many of the products we use every day around the home can harm our environment?

Worse, they can harm us!

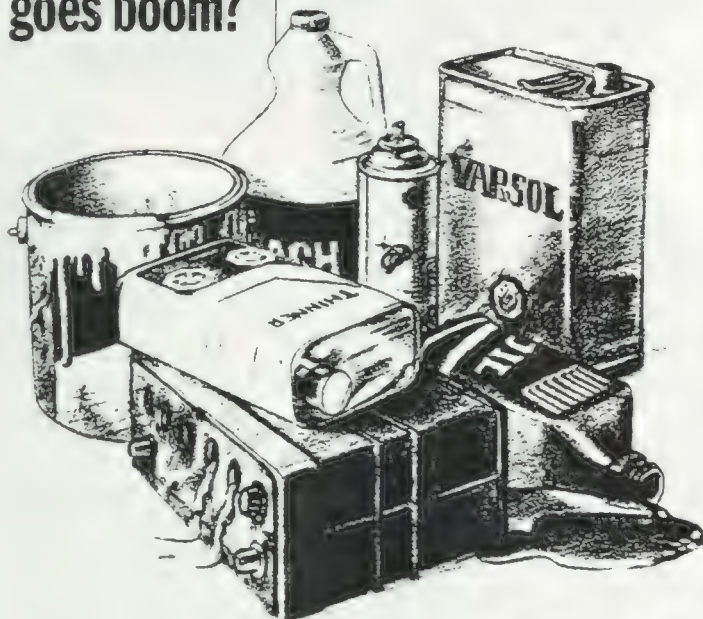
We're talking pesticides, paint thinner, and polishes. We're talking bleach, BBQ starter, and battery acid. And more.

What to do? First, dispose of your household hazardous waste in the safest possible way – read on, we'll tell you how.

And make the switch now to environmentally friendly alternatives – read on, we'll tell you what.

It's worth it.

Because we're only borrowing this land from future generations.



A symbol way to know hazardous waste!

Got unused products with any of these symbols hanging around your closets and cupboards?

Show 'em the door, sure – but DON'T put them out with your regular garbage or dump them down the drain!

At the end of this ad, you'll find numbers to call in the Greater Toronto Area for information on disposal of household hazardous wastes. Clip it and keep it handy.

And remember, some hazardous wastes, like motor oil and batteries, don't have these symbols (maybe they should!).



**REDUCE.
REUSE.
RECYCLE.**

**It's
worth it!**



Call in the good guys – baking soda, borax, vinegar, and friends!

You can make your own, safe, do-it-yourself cleaners from these inexpensive ingredients (we've even provided recipes!).

Baking soda makes a great, non-abrasive scouring powder.

Brighten up windows and mirrors with vinegar and water.

Two tablespoons of lemon juice in 1/4 cup of vegetable oil gives a gleaming wood furniture finish. Buff with a clean dry cloth.

Use a dish of potpourri, or cinnamon sticks and cloves boiling on the stove, as an air freshener.

How about washing soda or borax instead of bleach?

And two cups of boiling water once a week keeps your drains open.

More ideas? Ask your mom or grandmother – they'll tell you how to get along without dangerous chemicals!

Try these "green" cleaners!

RECIPE

For Your Oven

Mix 30 mL liquid dish soap and 15 mL borax in a spray bottle. Spray on dirty area. Wait one hour and scrub with steel wool.

For A Super Stain Remover!

Make a paste of lemon juice, borax and water – add a pinch of elbow grease – and you've got a dandy stain remover for upholstery and carpets.

Tell me where I can put my household hazardous waste!

Within the Greater Toronto Area, there is a combination of special depots, special days, and pick-up services for HHW. For information in your region, call:

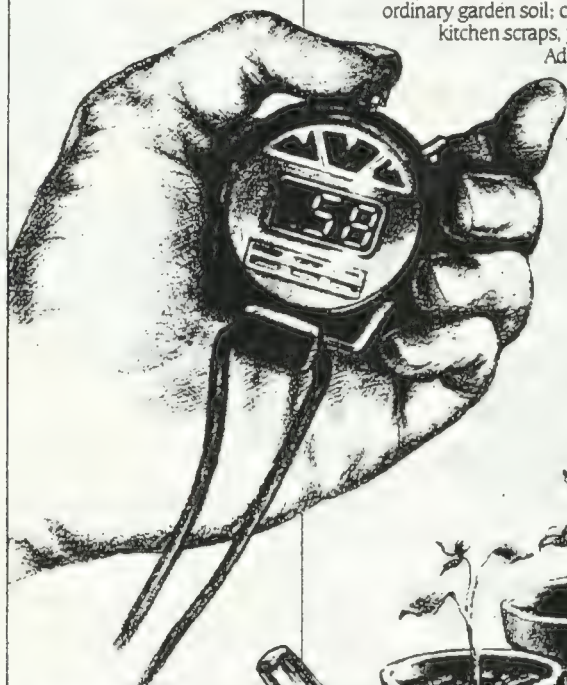
Metro Toronto 392-4330
Durham 1-800-561-0701
Halton 827-2151
Peel 791-9400, ext. 721
York your local municipality

For more information on household hazardous waste management, or alternatives to hazardous products, contact the Ontario Waste Management Corp.
Metro residents: 923-2918
Outside Metro: 1-800-268-1178



THE GREATER TORONTO AREA WASTE REDUCTION CAMPAIGN.
METROPOLITAN TORONTO, THE REGIONS OF DURHAM, HALTON, PEEL AND YORK, AND THE PROVINCE OF ONTARIO.

Take 58 seconds a day and get into compost!



You're serious about reducing waste, right? Then it's time you got into composting. All it takes is less than a minute a day to separate and save kitchen and yard waste... and end up with rich soil conditioner for your lawn and garden.

Why composting? Because composting is one of the fastest ways of making a serious dent in the garbage flow in the Greater Toronto Area. One third of your household garbage can be composted. And garbage reduction is one of the best things we can do - because we're only borrowing this land from future generations.

Start-up time: 58 seconds (more or less)!

Choose a garden spot with good drainage; start with a layer of woody material, then a layer of ordinary garden soil; continue to layer kitchen scraps, yard waste, and soil.

Add a few dry leaves now and then. Turn it over about once a month. You're on your way!

REDUCE.
REUSE.
RECYCLE.

It's Worth it.

Listen to your radio for
Tips About Composting
from Master Gardener
Mary Perlmutter.



It doesn't look like garbage!

You put in grass, fallen leaves and weeds; coffee grounds, egg shells, fruit and vegetable peelings. Avoid meat, bones or greasy foods, as they attract pests. (Some commercial composters differ - be sure to check instructions.) When it's ready (could be as soon as two or three months!), compost is a dark, rich, crumbly, earthy-smelling soil conditioner. It helps produce healthy plants, and healthy plants help clean our air. And it's free!



Divide and conquer!

You're already Blue-Boxing all your recyclables? Great!

Now it's an easy step to separate out most of your kitchen scraps and yard waste for home composting. And you can compost all winter long - the compost simply slows down until spring. By both recycling and composting, you'll be cutting your waste going to landfill by half.

Even apartment-dwellers can compost, through a special technique called *vermicomposting* - composting with earthworms!

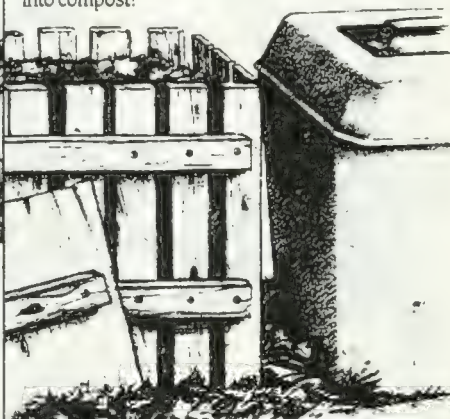
Price range: \$0 - ??

(How fancy do you want to get?)

It can be just a pile in a corner of the yard, a home-made container of wood and chicken-wire, a converted garbage can or 45-gallon drum, or a multi-unit construction that allows for really fast composting. It's your choice.

There are a number of commercial units on the market - or your regional municipality may be making units available at a subsidized cost.

Whatever you choose - it's easy to get into compost!



Here's how to get all the dirt on composting

Metro Toronto: 392-4689 Durham: 1-800-667-5671.
Peel: 791-9400 ext. 767.
Halton and York: contact your local municipality.
The Recycling Council of Ontario: 960-0938.

THE GREATER TORONTO AREA WASTE REDUCTION CAMPAIGN

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'GM Autoplex is state-of-the-art... and today that means practising the 3Rs!'

George Peapples
President and General Manager
General Motors of Canada

"We've achieved a 36% reduction in waste going to landfill over the last two years." GM Autoplex in Oshawa is North America's most modern vehicle assembly complex. So it's fitting that their landfill diversion program is already a full year ahead of the Ontario target of 25% by 1992. An integrated waste management system sorts and separates recyclable materials and wastes at the 650-acre facility.

"We like to think of our cardboard recycling program in terms of nearly 200,000 trees saved each year." GM has been recycling various materials for over 20 years. Every day GM Autoplex recycles 40 tonnes of cardboard - approximately 10,000 tonnes a year.

"Engines, transmissions, batteries, seats, and other parts are shipped to us in returnable/reusable containers." GM is also experimenting with new forms of returnable cardboard containers, which fold down and save costly space when returned to suppliers for reuse. And every reuse saves precious landfill capacity.

"Even our plastic drums get reused in our neighbours' backyards!" GM has donated over 2,000 plastic drums to Durham Region for reuse as backyard composters, and also sponsors recycling "igloos" for placement in public areas. From large manufacturers, through small businesses, to private individuals, everyone has a part to play in waste reduction - and everyone benefits!

REDUCE.
REUSE.
RECYCLE.

It's Worth it!

Need business 3Rs advice? Call these Greater Toronto Area numbers:
Metro Toronto: 392-4200
Durham: 668-7721, ext. 5308
Peel: 791-9400, ext. 767
York: 895-2303



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'Yes, the 3Rs pay off for Upper Canada Brewing – and it fits with our natural product.'

Frank Heaps, President
Upper Canada Brewing, Toronto

"We recycle 90% of our solid waste – and save \$20,000 a year!" All those corrugated cardboard cartons used for bottle return are compacted in a specially-purchased unit, then hauled away for recycling. It actually costs less than sending them to landfill – and recovery revenue can be as high as \$60 a tonne!

"All our used barley malt goes for cattle feed!" Spent grain used in brewing is picked up regularly by a Georgetown cattle farmer. It saves on costly disposal – and keeps it out of landfill!

"We use no cans. Bottles are returnable, reusable." Upper Canada's ales and lagers are sold only in returnable bottles and kegs. And that means less waste going to landfill, or even to recycling.

"Composting? We do it on site." Coffee grounds and all food waste from the employees' lunch room are put into the company's own composter at the plant.

"You don't have to be one of the 'big guys' to make a difference!" All breweries use plastic serving cups for special events. Upper Canada believes they're the only one to collect and recycle all their promotional plastic cups.

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**'At Lever, we've
cut our waste going
to landfill by half.
Already, we can see
cost efficiencies.'**

**George Franzen, President
Lever Brothers Inc.**

"We're recycling cardboard, paper, virtually all packaging materials." In addition to in-plant recycling of corrugated cardboard, Lever has reduced office paper use (and its cost!) by over 50%. All stationery must contain recycled materials - and 95% of paper waste is recycled again.

"Our Recycling Annex recovers and recycles powder that used to go to waste." High-speed production lines can produce spoilage, often discarded. Lever has installed a special process to separate detergent powder and broken packaging, recover powder for reuse, and recycle the packaging. Wastage is cut to a minimum.

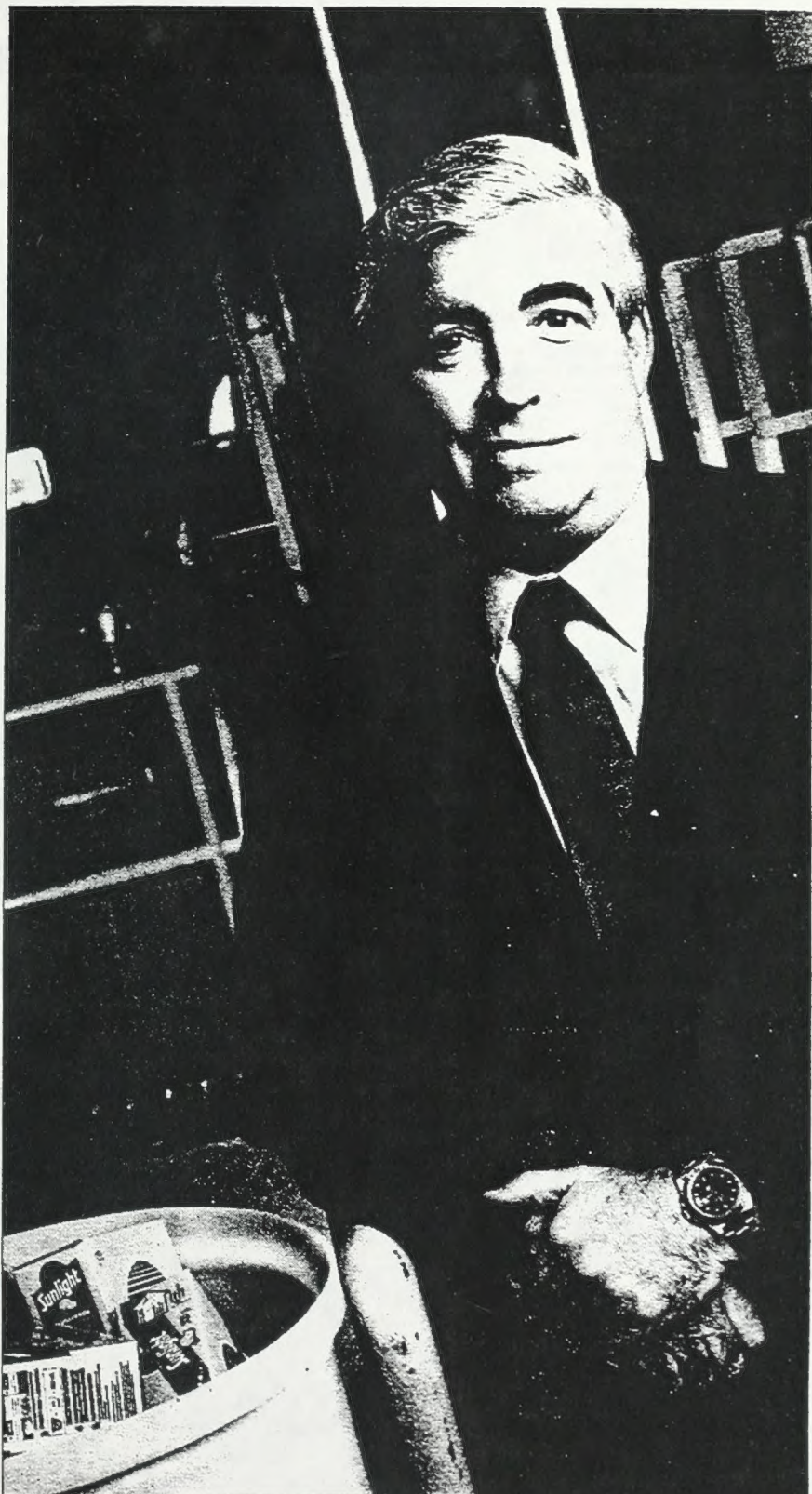
"Packaging has been redesigned to reduce post-consumer waste." At Lever, all liquid products are packaged in recyclable plastic which can go into the blue boxes of the majority of households in the Greater Toronto Area. To help close the recycling loop, Lever will be using recycled plastic in its containers.

"All our suppliers are encouraged to practice the 3Rs." To save on waste disposal costs, Lever requires that shipping materials be taken back by suppliers, wherever possible. Chemical producers collect and reuse chemical containers.

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'First Canadian Place is into farming – and it pays!'

Benjamin Leon,
Olympia & York Developments.

"Every week we ship 275 kg of swill to local pig farmers!" Instead of mounds of leftover food waste, peelings and plate scraps from restaurants in the twin towers going to landfill, First Canadian Place maintains a refrigerated swill room to store food waste for weekly collection.

"We used to send 40 tonnes of waste to landfill every day. Now that's cut to seven tonnes. And that saves \$1.3 million a year in disposal costs!" Wooden loading pallets are collected for reuse. Glass, aluminum and steel containers are all separated for recycling. Construction materials from renovations are sent to a recycler after segregation into drywall, brick, glass, wood and metal. It's all relieving pressure on Greater Toronto Area landfills – and that's great!

"We've been recycling fine paper for several years; now we're even planning a paper shredding centre for extra security." The average office employee generates over 4.3 kg of waste paper every month. Multiply that by First Canadian Place's 20,000 tenants, and you're looking at over 1,000 tonnes a year – virtually all of it recyclable. Computer paper is particularly high in value.

"Our tenants have cooperated fully – and we've been able to pass cost savings on to them." Everyone helps separate out garbage into recyclable and non-recyclable bins. Recyclables are baled and compacted for easier pick-up. What started as an effort to control waste disposal costs has paid off in more than savings: it has made tenants, employees and Olympia & York management more conscious of the need for all of us to reduce, reuse, recycle!

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